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FOREIGN AGRICULTURE REPORT
U. S. DEPARTMENT OF AGRICULTURE
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FILBERTS IN TURKEY

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by
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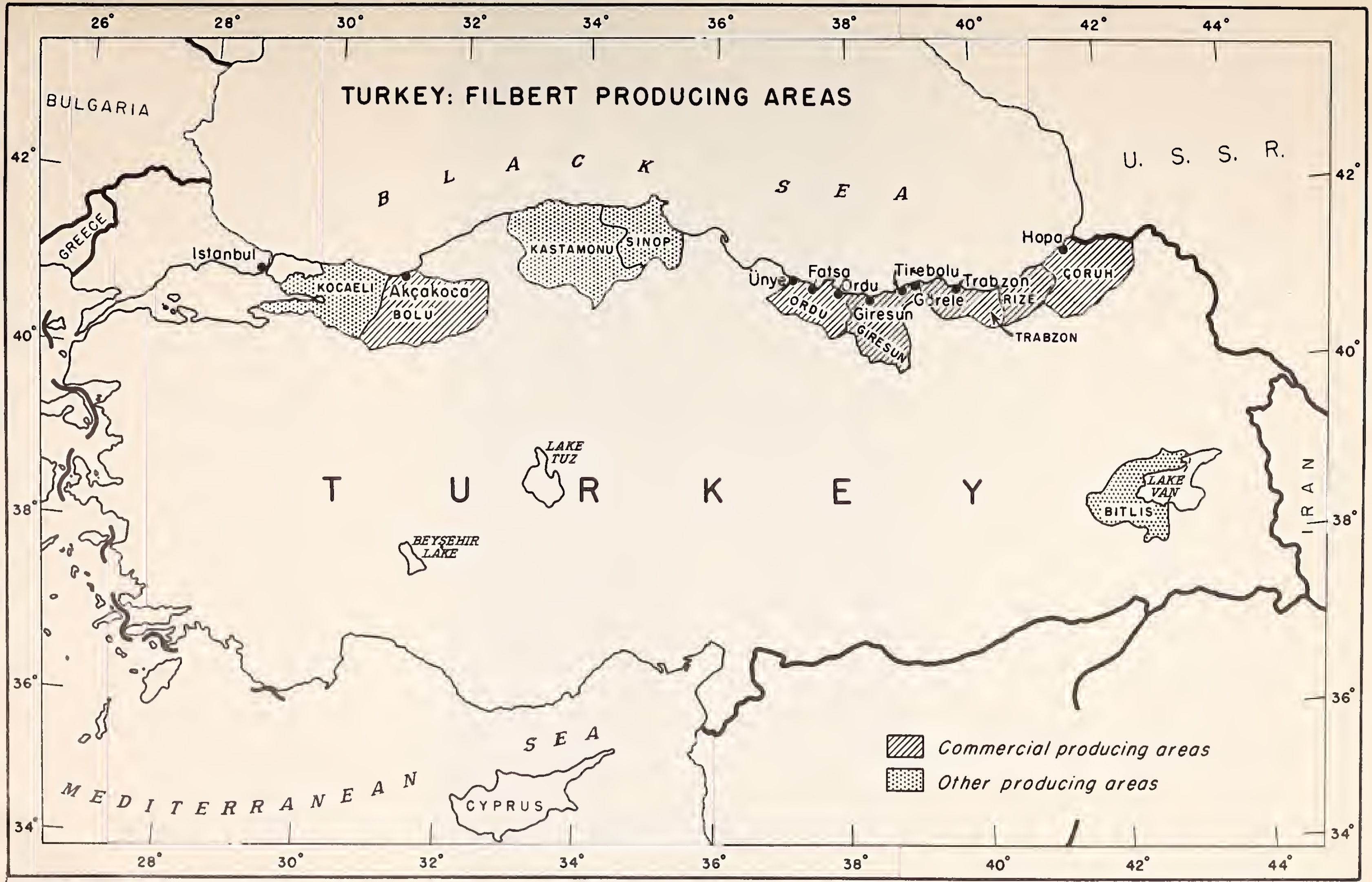
The Republic of Turkey as now constituted may be said to have had its origin as a result of the signing of the peace treaty between the Allied Powers of World War I and Turkey at Lausanne, Switzerland, on July 24, 1923.

Turkey lies in both Europe and Asia and is almost as large as Idaho, Oregon, Washington, and California combined. Its estimated population in 1950 was 20,902,630, compared with 15,575,000 for the four States.

Turkey is surrounded on three sides by water and on the fourth by mountains, which cover much of the country. Most of its people are farmers and most of its principal exports are farm products--tobacco, cereals, dried fruits, nuts, cotton, and opium. Filberts stand fourth among Turkey's export crops, preceded by tobacco, cereals, and dried fruits. In 1946 filberts represented 9.6 percent of the total exports by value and in 1947 they represented 6.8 percent.



TURKEY: FILBERT PRODUCING AREAS

U. S. DEPARTMENT OF AGRICULTURE

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FOREIGN AGRICULTURAL SERVICE

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FILBERTS IN TURKEY

In Turkey--and in Spain and Italy--are produced most of the filberts that move in world trade. Filberts are Turkey's fourth most important export crop. They are produced in a narrow strip of mountainous land that borders the Black Sea. Along some stretches of coastline the mountains--the Smali Anadolu Daglari Range--reach the water's edge; along others there is a small flat plain. The area around the town of Giresun, the center of the filbert industry, is more or less typical of the region. Here, there is an average of less than a mile of level ground from the edge of the sea to the base of the mountains. This land is used for truck crops, homes, and other purposes. Near the beach, the local cooperative has its shelling plant and just to the east, on a rock projecting into the Black Sea, it has its official headquarters. The mountains here are almost solidly covered with filbert bushes.

Filbert bushes cover the mountainsides around Giresun, the center of Turkey's filbert industry.

Much of the soil in the filbert area is of volcanic origin and generally very fertile. Some of it is sandy and pebbly and some is clay.

Transportation to the filbert area is difficult. There is frequent passenger and freight steamer service operated by the Turkish Government Merchant Marine, but railroads are scarce (the only main line runs from Kayseri in the interior to Samsun on the coast) and there is only seasonal air service to parts of the region. The road along the coast from east to west--from

Hopa to Unye--is rough as are the roads leading into the interior. They are generally carved out of the mountainsides and paved with local stone. Too, they are usually steep and barely wide enough to accommodate two vehicles. Bridges may be of wood or cement or steel. In winter the earth and rocks wash down the mountainsides, making it difficult to keep the roads open.

Traveling along these narrow roads, one sees many more carts and wagons than trucks or busses. The few trucks I saw were American made and of not more than 1½-ton capacity. Farmers and their families apparently often walk to and from town here, for I saw many of them carrying bundles of produce to sell or purchases that they had made in town. These people are friendly, most cooperative, and eager to put a stranger at ease and to learn how things are done in his country.

Location of Producing Areas

Turkey's principal commercial filbert-producing area lies between 40° and 41° N. and between 37° and 42° E. A new commercial area, Akcakoca, is near 41° N. and 31° E. (The United States filbert-producing area is located between 44° and 47° N. and between 122° and 123° W.) The area extends from Unye on the west to Hopa on the east. It comprises the vilayets[1] of Ordu, Giresun, Trabzon, Rize, and Coruh. Moving from west to east the first town of importance is Unye, then Fatsa, Ordu, Giresun, Tirebolu, Gorele, Trabzon, and Hopa. The filbert area extends inland for 15 to 20 miles depending on the terrain and other factors. The deepest penetration is in Rize. The new area inland from the coast, centered at Akcakoca, in Bolu vilayet, is gaining in importance. It produces a good quality nut and is closest to the export market at Istanbul.

TABLE 1.--Population and density per square mile in principal filbert producing vilayets, 1948

Vilayet	Population	Average population per village	Square miles in area	Density per square mile
Bolu	276,367	336	4,301	64
Coruh	159,328	519	3,071	52
Giresun	283,626	442	2,513	113
Ordu	333,008	603	2,309	144
Rize	171,929	555	1,357	127
Trabzon	395,384	609	1,788	221
Total	1,619,642	511	15,339	120

Source: "Istatistik Yilligi," Government of Turkey, Ankara, 1949. Encyclopaedia Britannica, Chicago, Ill.

Filberts are also grown to some extent in the vilayets of Sinop, Kastamonu, Kocarli, and Bitlis. The production in these vilayets is generally used in local and domestic markets; but filberts from the vilayet of Kocarli often find their way into the Istanbul market, where some of them may eventually be exported.

Cultural Practices

The cultural practices employed in the filbert industry of Turkey differ rather materially from those of the United States. The mountainous and often rocky terrain of the filbert area does not lend itself to the advantageous use of modern farm implements and tractor power. The filberts are bushes, not trees as in the United States, and generally are not planted in regular orchard formations as they are in our own country. Over much of the area it would be difficult to plant these bushes in such formations since outcropping rocks and other obstacles are frequent. And only the more progressive farmers actually plant young stock on their land; most filbert growers leave the planting of filberts to nature. As a result the older and wild bushes grow where the terrain permits.

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[1] A vilayet is a geographical area similar to an American State.

A number of years ago Turkish authorities roughly classified the types of terrain and soil in the filbert area and their relationship to yield. On the basis of this survey it was possible to advise growers where and how to plant new bushes. The results of this survey are as follows:

Type of soil and terrain	Yield per decare[1]
	Pounds
Sandy, low ground (valley)	275
Pebbly, inclined to southern exposure	220
Clay, flat, low ground	220
Clay, southern exposure	176
Sandy, pebbly, southern exposure	165
Clay, little incline, southern exposure	154
Sandy, pebbly, slight incline, northern exposure	110
Clay, slight slope, northern exposure	88
Poor, low ground	66
Sandy, pebbly, sloping, northern exposure	55
Clay, slightly inclined, northern exposure	44

The survey revealed that, on any given type of soil, plantings on a northern exposure produced less than those on a southern exposure. Plants on sandy, low ground in valleys gave the highest yield; there is, however, relatively little of this type of land available. From the survey, too, it was learned that crowding of the rootstocks tended to reduce yields--that a grower would be wise to allow for generous spacing between his bushes and to use the land between for other crops. In connection with these observations, it should be pointed out that, in selecting samples, various age groups and types of nuts were taken and that therefore the samples are not always strictly comparable.

Filbert bushes generally have four to five stalks from each rootstock.

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[1] 1 decare is about 0.247 acre.

TABLE 2.—Temperature data in three principal filbert producing districts, 1941-50: Average monthly, average annual, minimum, maximum

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
BOLU										
	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.
January	35.4	26.2	29.1	27.7	33.3	31.7	28.2	41.5	28.2	22.5
February	41.5	38.3	27.5	38.5	30.0	35.4	39.2	31.6	26.2	26.0
March	38.7	38.3	32.4	40.6	33.8	38.1	48.4	30.9	36.5	38.1
April	52.7	46.0	46.0	49.8	44.6	48.0	49.3	46.8	42.4	55.4
May	59.0	57.7	54.9	53.1	59.5	57.0	57.0	57.6	59.7	57.4
June	63.7	65.7	61.2	63.9	59.7	63.1	65.1	62.4	62.2	61.2
July	67.3	66.0	63.9	66.2	65.8	67.5	68.4	67.1	64.4	66.2
August	66.4	66.4	66.9	64.8	69.4	68.9	65.7	68.9	64.8	65.3
September	57.4	60.1	61.3	60.1	61.0	64.0	59.0	59.2	55.8	63.5
October	50.0	52.3	57.9	56.1	49.5	48.2	48.6	51.6	52.0	49.6
November	39.4	42.6	48.7	46.0	44.4	48.7	46.6	38.1	49.5	44.1
December	27.9	32.9	38.1	37.9	33.4	39.2	41.7	36.7	39.2	41.2
Annual average	49.6	49.5	48.9	50.4	48.7	50.9	51.4	49.4	48.4	49.3
Maximum	(1) 94.3	(1) 95.0	Aug. 95.7	July 62.8	Aug. 102.9	Aug. 93.0	June 92.5	(1)	(1)	(1)
Minimum	(1) -20.4	(1) -24.7	Feb. -1.7	Jan. -4.2	Jan. -14.1	Feb. -5.2	Jan. -11.0	(1)	(1)	(1)
GIRESUN										
January	44.9	40.6	44.8	43.3	46.6	41.7	41.5	52.2	41.0	36.5
February	50.4	44.9	39.9	49.5	40.1	44.4	46.9	45.0	37.9	41.4
March	44.8	40.1	40.5	48.9	43.5	45.5	52.0	41.4	46.0	45.5
April	55.0	47.5	49.6	50.7	48.9	51.3	54.1	49.3	47.1	59.0
May	63.3	58.3	58.6	57.0	60.1	61.3	59.5	60.4	61.9	59.4
June	69.3	68.9	65.3	67.8	66.2	68.9	69.8	69.8	68.9	65.3
July	73.8	71.2	70.5	72.7	72.5	72.9	74.5	72.3	70.7	70.1
August	73.0	72.7	82.9	71.4	74.3	75.0	72.3	74.1	70.0	69.8
September	66.0	67.6	68.7	66.9	68.7	70.9	66.7	66.7	64.0	69.4
October	59.2	62.4	65.3	63.9	59.0	57.6	58.6	58.2	58.5	59.9
November	51.1	55.2	58.8	57.2	53.6	56.7	55.8	49.3	60.1	55.6
December	43.2	45.9	49.5	50.4	46.8	50.2	54.1	42.8	48.9	53.8
Annual average	57.9	56.3	57.2	58.3	56.7	58.1	58.9	56.8	56.3	57.2
Maximum	(1) 89.2	(1) 87.4	July 89.2	May 92.3	Aug. 90.5	Aug. 87.1	Aug. 90.5	(1)	(1)	(1)
Minimum	(1) 21.9	(1) 24.4	March 27.3	Jan. 27.5	Feb. 23.7	Dec. 27.3	Feb. 22.6	(1)	(1)	(1)
RIZE										
January	46.9	41.0	46.9	43.7	47.3	41.9	42.1	52.3	41.0	36.7
February	51.1	45.9	43.0	50.4	40.1	45.5	46.6	45.9	37.4	41.0
March	46.0	41.4	43.2	50.0	43.9	46.4	52.5	41.0	45.9	46.4
April	57.6	48.7	51.3	52.5	48.9	50.9	54.7	50.5	47.5	60.1
May	63.7	59.2	58.5	57.9	60.1	60.4	60.8	59.9	62.1	62.1
June	69.6	69.3	63.1	68.5	65.7	68.9	70.0	70.0	69.6	66.9
July	72.5	70.9	70.0	72.1	71.6	72.5	74.1	72.0	71.2	72.0
August	71.8	72.0	72.5	70.2	72.9	75.0	72.1	73.2	70.7	70.3
September	66.6	68.4	68.2	67.1	68.5	70.3	66.4	66.0	64.6	70.2
October	59.2	64.6	65.8	64.4	59.2	57.7	59.4	58.5	59.4	59.5
November	50.2	59.0	59.4	58.1	54.3	57.2	56.7	49.5	59.5	55.4
December	42.3	48.9	50.2	50.2	47.1	49.6	54.5	42.6	48.9	48.6
Annual average	58.1	57.4	57.7	58.8	56.7	58.1	59.2	56.8	56.5	57.4
Maximum	(1) 97.5	(1) 95.0	May 87.6	May 90.0	May 91.2	Nov. 86.7	Aug. 92.3	(1)	(1)	(1)
Minimum	(1) 21.6	(1) 23.4	March 25.7	Jan. 29.1	Feb. 26.2	Jan. 28.0	Feb. 22.6	(1)	(1)	(1)

[1] Data not available.

Source: 1949: "Istatistik Yilligi," Government of Turkey, Ankara, 1949. 1941-48, 1950: Encyclopaedia Britannica, Chicago, Ill.

TABLE 3.--Average rainfall, monthly and annual, in five principal filbert producing districts, 1941-50
[In inches]

BOLU

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January..................	2.8	2.3	2.0	3.2	2.3	.7	2.3	2.3	1.4	3.6
February.................	1.0	.5	.5	1.6	3.4	3.4	1.3	5.8	3.0	2.9
March....................	1.5	.5	.9	3.6	1.3	2.7	1.0	4.0	2.0	2.0
April....................	.7	1.9	2.4	1.1	1.3	.9	1.3	1.9	1.8	2.2
May......................	1.7	2.1	3.6	1.9	.6	2.2	1.1	2.1	1.5	1.2
June.....................	1.0	.6	1.2	1.1	3.1	.7	1.9	2.7	1.6	1.7
July.....................	1.3	.3	0	.5	.6	0	1.9	0	1.2	1.2
August...................	.7	1.0	0	.2	.1	.9	.9	0	0	1.9
September................	.7	1.7	.7	.2	.7	.2	1.1	.6	3.9	1.8
October..................	1.4	2.4	1.7	.7	1.6	2.3	.7	1.6	.4	3.8
November.................	2.9	1.9	2.0	1.0	1.1	3.9	2.5	1.3	1.0	2.4
December.................	2.2	.9	2.4	.9	2.1	1.4	4.7	.9	4.1	.9
Annual.................	17.9	16.1	17.4	16.0	18.2	19.3	20.7	23.2	21.9	25.6

GIRESUN

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January..................	7.1	6.4	5.3	8.2	4.2	9.8	7.2	3.1	4.5	9.6
February.................	2.0	.8	2.9	3.8	3.9	7.6	3.8	5.6	6.9	4.1
March....................	9.7	5.0	3.2	3.6	6.1	5.6	3.4	6.2	3.0	3.1
April....................	2.5	3.1	3.5	2.8	4.0	2.1	1.8	3.3	4.7	1.1
May......................	3.2	2.4	2.4	2.7	1.5	2.8	1.5	.9	1.1	3.1
June.....................	3.3	1.0	2.2	1.3	1.7	4.3	.7	6.0	1.3	2.0
July.....................	3.0	6.3	2.3	1.2	.4	5.0	5.9	4.0	5.6	1.6
August...................	6.8	3.5	3.5	2.4	1.4	1.1	3.6	2.4	17.7	4.6
September................	10.0	2.4	4.2	2.4	2.2	6.9	4.9	1.4	5.9	.2
October..................	4.3	7.8	4.8	1.9	8.1	10.9	7.1	7.7	7.4	7.6
November.................	7.6	8.3	3.7	7.8	4.4	1.2	6.4	7.6	1.3	3.3
December.................	4.4	2.9	8.5	3.6	.9	1.8	2.7	7.0	4.7	1.6
Annual.................	63.9	49.9	46.5	41.7	38.8	59.1	49.0	55.2	64.1	41.9

ORDU[1]

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
January..................	9.4	9.8	9.0	7.7	5.3	8.0	-----	-----	-----	------
February.................	2.6	.6	6.6	4.1	4.9	9.4	-----	-----	-----	------
March....................	10.2	5.0	5.2	8.2	9.6	8.0	-----	-----	-----	------
April....................	4.1	3.8	2.4	4.3	4.8	1.8	-----	-----	-----	------
May......................	2.6	2.9	3.3	4.1	1.7	2.9	-----	-----	-----	------
June.....................	1.1	1.0	2.5	1.8	2.5	6.5	-----	-----	-----	------
July.....................	2.5	1.9	.9	6.2	3.0	4.1	-----	-----	-----	------
August...................	3.9	1.8	3.0	1.8	.8	3.2	-----	-----	-----	------
September................	8.4	2.8	5.2	2.3	4.2	4.0	-----	-----	-----	------
October..................	6.6	7.4	6.4	1.5	8.7	13.8	-----	-----	-----	------
November.................	10.2	3.2	3.8	10.3	3.3	.9	-----	-----	-----	------
December.................	6.5	3.5	6.4	4.0	5.2	1.7	-----	-----	-----	------
Annual.................	68.1	43.7	54.7	56.3	54.0	64.3	-----	-----	-----	------

See footnotes at end of table.

TABLE 3.--Average rainfall, monthly and annual, in five principal filbert producing districts, 1941-50--Continued

[In inches]

Month	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
RIZE										
January	13.7	15.3	9.0	13.0	8.6	10.4	15.6	6.3	7.2	25.4
February	2.3	2.3	8.4	6.1	6.2	9.6	7.9	17.1	12.1	5.3
March	10.5	7.7	6.9	4.5	9.3	5.0	5.1	11.8	8.3	6.2
April	4.8	3.9	1.1	3.6	7.2	3.1	5.1	3.3	6.8	.7
May	5.6	3.4	4.0	6.4	3.3	5.8	.4	1.3	1.1	2.7
June	4.4	3.5	1.5	2.9	6.2	8.1	2.2	7.0	3.5	3.9
July	6.8	2.6	5.7	2.5	7.8	8.4	4.9	6.0	4.4	3.1
August	15.3	9.4	4.2	4.9	7.1	2.9	4.7	7.0	6.5	6.3
September	14.0	6.2	7.7	5.1	5.5	13.5	7.2	10.7	12.1	5.8
October	14.1	12.7	10.6	8.5	19.3	26.0	14.5	12.0	10.1	17.7
November	18.0	20.0	8.6	9.3	6.4	2.2	11.4	10.9	2.5	11.3
December	15.6	11.2	10.7	2.4	7.2	10.9	9.4	15.6	14.2	10.9
Annual	125.1	98.2	78.4	69.2	94.1	105.9	88.4	109.0	88.8	99.3
TRABZON										
January	4.4	9.8	2.7	4.1	1.8	8.9	3.7	2.3	2.8	13.8
February	1.5	.8	1.8	3.6	1.3	3.1	1.3	3.6	4.7	2.3
March	5.5	3.1	2.2	2.6	1.7	2.0	1.3	3.0	1.2	2.3
April	2.4	2.5	1.0	2.4	2.4	1.5	1.2	1.5	3.3	.8
May	3.9	3.1	1.7	2.3	1.4	3.6	.9	.6	.8	2.8
June	1.7	.1	.6	1.5	3.2	2.3	.9	2.8	1.3	3.4
July	2.3	2.0	2.0	.5	.2	2.7	.8	1.0	1.2	.3
August	5.1	.9	.2	.2	.9	.3	3.6	.5	4.3	.9
September	5.4	1.3	1.3	3.5	.8	3.5	2.7	1.7	5.5	.7
October	4.8	7.6	2.6	1.8	9.9	10.6	4.7	3.5	2.9	7.2
November	6.8	5.8	3.9	3.0	1.2	1.0	4.8	5.4	.5	3.0
December	3.9	2.6	5.8	.7	3.9	.8	3.0	3.5	6.1	1.0
Annual	47.7	39.6	25.8	26.2	28.7	40.3	28.9	29.4	34.6	38.5

[1] Data for 1947-50 not available.

Source: "Istatistik Yilligi," Government of Turkey, Ankara, 1949.

In some areas the soil is seldom plowed or disturbed in any way around mature bushes. Only in the better areas is it worked; here, it is calculated, 24 man-days per acre per year are generally required for land preparation. This is a large figure by American standards but not so large when one realizes that the terrain is difficult and that most of the work must be done by mattocks or other hand implements. The ground around the bushes is covered by good growth of grass and herbs. This vegetation serves two purposes: it prevents the washing away of the soil and it is a source of animal feed. Small flocks of sheep and goats, and sometimes cattle, horses, and mules, are grazed in the area and generally keep the vegetation down to about the level of a well-grazed pasture. The goats and sheep also browse on the suckers and lower leaves of the bushes. These domestic animals and such wild animals as rats and boars frequently do a small amount of damage to the crop.

Irrigation is uncommon in the area because of the hilly terrain and because there is abundant rain and snow. Some benefit is derived from the sea mists, too. Sufficient moisture is important in the growing of filberts, for the bushes cannot withstand droughts for more than a very short period without a heavy loss of fruit.

The bushes usually have four to five stalks from each rootstock. Turkish filbert growers and trade members generally count one rootstock as one unit, whether it contains four or eight stalks. The usual practice is to remove all new suckers on a vigorous root system and keep only the four or five stalks. When a stalk dies, gives a poor yield, or is undesirable for any other reason, it is removed and a young sucker is permitted to grow to maturity. The stalks on the bushes are usually allowed to attain heights of 13 to 16 feet.

Propagation is carried on by the use of 2-year-old shoots from existing bushes. The shoots are taken from the best yielding bushes and those producing the most desirable type of filberts. The land is well worked and amply fertilized. The holes are dug, usually in October and November, from 13 to 26 feet apart (wild plants are closer together, generally from 10 to 16 feet apart), depending on various factors such as terrain. The holes are left open from 30 to 45 days; then, late in November or December, four or five young shoots are placed in each hole, spaced about 2 feet apart. The hole is filled and the soil carefully tramped in around the shoots. Sometimes planting is done in February, March, and April, although most growers prefer November or December. Where the terrain permits and the soil is satisfactory, the plantings are more or less in rows. The young shoots are permitted to take root and the second year are generally cut back to near their base. The new growth then starts the third year. In many districts where the land permits, corn or other crops are interplanted during the first season or two. About 3 to 4 years after the cutting-back, the stalks begin to bear. Turkish growers consider it takes 5 years from the planting of the shoot to obtain the first worthwhile harvest. They state that 8 years from the planting the stalks reach a commercial yield. Each bush or unit, composed as it is of more than one root, is expected to produce a maximum yield for 15 to 25 years but is usually kept longer.

At one time, rootstocks were kept for about 50 years or as long as they produced. In recent years, with more scientific information available and encouragement from agricultural officials, farmers have replaced rootstocks earlier.

Pruning operations are as frequently carried out for the purpose of obtaining firewood as for cultural reasons. The prevailing notions on this subject seem to be that filberts require little pruning. When all the stalks are old and yield is below average, they may be cut and new suckers permitted to grow. If the rootstock is diseased or of an undesirable type nut, it is grubbed out and a new one planted in its place. All the suckers, dead wood, grubbed roots, and twigs - in short, any combustible material removed from the bush - are carefully collected and used for fuel in the home of the grower or are sold. Such material is usually tied in bundles and carried out either on the back of pack animals or humans.

Insect control is not widely practiced in Turkey because the sprays, the only control method now available, are difficult to apply in the hilly filbert area. The principal insect pest that damages filberts is the Balaninus nucum L. This weevil goes through the usual cycle: The fly pierces the young green filbert, usually in April, and lays its eggs inside the shell. The eggs hatch and the grubs feed on the kernel until late in June, when the kernelless shell falls to the ground. The grub buries itself in the ground and remains there through the winter, emerging the next spring as a fly.

Growers state that if April is wet and cold the insect damage is heavy; if it is warm and relatively dry the insect damage is light. There is usually a day or two of strong winds near June 25, which are said to blow the insect-damaged nuts to the ground. This is the phenomenon that usually makes many persons reluctant to forecast the crop until after June 25. It is also said that the quality of the crop can be forecast in June by the weather. If rainfall is ample, the nuts will fill out and be of good quality. If the month is dry, the nuts will be of poor quality, many with shriveled kernels. The June drop will also be larger if it is dry during the month.

The amount of damage done by the weevil in some years is considerable. In 1950, for instance, this insect caused substantial loss of fruit. In some areas, attempts are made to employ insecticides in combating the pest; however, the manner in which the filberts are grown and the terrain make combating it difficult. Spray, where used, must of necessity be applied with small hand-spraying apparatus, as it is not possible to use the large mechanical power-driven rigs employed in the United States and elsewhere.

The agricultural experiment stations in the area are studying the insect control problem and may eventually find a more practical solution than spraying. At present the natural enemies of the weevil such as birds and weather are still the most effective controllers of the insect.

Another insect that damages filberts is the Eriophyes coryligallarum T-T, frequently referred to as the husk worm or in Turkey as kozalāk. This insect is said to be the second most damaging to the filbert crop. It usually occurs in poorly cared for places. In February and March the worm enters the flowers, which soon seem to become covered with a fungi. The fungi prevents spray from reaching the worm. Eventually the flower drops to the ground. It has been recommended that these infested flowers be picked and burned.

A third insect, whose scientific name I did not learn, causes the branches and stalks of filberts to dry and break. This damage is called dalkiran (broken branch). The female insect bores a hole into the center of the branch, usually a young branch, and then eats the heart. The branch becomes dry and is eventually broken by strong winds. Agricultural authorities recommend that growers cut infested wood as soon as detected and burn it to destroy the insect.

Similar damage is cause by an insect later in the season known as filiz kurutan (the scientific name of this insect was not available). In mid-summer the female insect lays its eggs on the stalks, where they hatch. The young worms eat into the twigs, and the leaves dry and fall off; the ends of the twigs dry out also. Agricultural authorities recommend that infected twigs be cut and burned.

Acreage

How many acres of commercially producing filberts are there in Turkey is a question that cannot be answered with any degree of accuracy, for the area covered by filbert bushes has both young and old root systems and both young and old stalks on the same roots. It is true that growers consider that a stalk is in commercial bearing at 5 years and improves as it gets older, but this applies to the individual stalk from a root system that may have stalks of various ages. Too, the bushes are scattered about on the mountainous terrain, much of which is waste land.

Turkish sources estimate that there are some 119,000 hectares (293,930 acres) of tillable land in the filbert belt, on 65,000 hectares (160,550 acres) of which are filberts. The land on which filberts are growing--not solidly but in varying amounts--represents 54.6 percent of the total tillable land in the area. An estimated 50,000 hectares is bearing acreage and 15,000 hectares is young nonbearing. The equivalent in acres is 123,500 of bearing filberts, or 30 million bushes, and 37,000 nonbearing, or 9 million bushes. These data indicate an acreage devoted in whole or in part to filbert production more than 5½ times greater in Turkey than in the United States.

According to some authorities, there is an average of 600 rootstocks per hectare in Turkey--roughly 243 per acre. The Oregon-Washington nut tree survey of 1949 indicated an average of 84.8 trees per acre. On that basis, there are about three times as many bushes per acre in Turkey as there are trees per acre in the United States. As for figures on total trees and bushes, here again Turkey has the greater number--the ratio is slightly under 16 to 1.

The average age of filbert bushes in Turkey is considerably higher than that of the Oregon-Washington trees, too, since the United States industry was started in the late 1920's.

It is estimated that the average yield per bush of bearing filberts in Turkey is about 5 kilos in the husk (about 11 pounds) and that the average yield per hectare is 750 kilos dry weight, husks removed (about 668 pounds per acre).

Types of Nuts

The number of varieties of Turkish filberts is not known since most of the plantings are composed of wild or seedling bushes. The nuts are, however, classified into trade types, which more or less correspond to the region in which they are found. There are two trade groupings, Giresun and Levante, which are further broken down into round (tombul) and pointed or long (sivri).

The nuts produced in the Giresun district from Piraziz (just east of Ordu) to Gorele (near the border between Giresun and Trabzon vilayets) and from the sea inland to the end of the

TABLE 4.--Comparison of pertinent features of principal filbert varieties

Variety	Thickness of shell	Size			Volume	Weight	Weight of kernel	Proportion of sound kernels
		Length	Width	Ratio of length to width				
	Millimeters	*Millimeters*	*Millimeters*		*Cubic centimeters*	*Grams*	*Grams*	*Percent*
Giresun:								
Round........	1.00	17.1	16.2	1.06	1.95	1.57	0.87	47.5
Pointed......	1.25	18.8	14.7	1.28	1.75	1.48	.88	49.0
Trabzon:								
Round........	1.50	17.1	16.6	1.03	2.30	1.69	.77	46.0
Fosa.........	1.75	20.1	21.1	.95	3.00	2.12	1.01	48.0
Black pointed..	.75	19.2	15.9	1.20	1.90	1.51	.80	52.0
Kus (bird).....	.62	17.7	18.1	.97	2.70	1.84	1.03	56.0
Dragon.........	2.00	21.5	24.4	.88	5.80	3.10	1.08	35.0

growing area are known as Giresun (also as Kerassunde and Kerrasunde). All other Turkish filberts grown in the main Black Sea area are known as Levante. There is a further distinction in the trade in the case of Levantes. Those grown in Ordu vilayet are called Ordu.

According to some authorities the Giresun nut is the best in Turkey, and the people of that vilayet jealously guard their right to the use of Giresun filberts as a name for their crop. The people of Ordu vilayet are also proud of the distinction given their filberts.

The round Giresun is considered by most shellers in Giresun to be the best of the Giresuns for shelling, since it is not easily damaged in the process. This nut is more or less round in shape, with a pointed tip. The shell is thin, shiny reddish yellow with fairly dark regular lines plainly visible. The bottom is flat and large. The kernel is usually tightly packed against the shell.

The kernel of the round Giresun is like the unshelled nut in shape. It has four longitudinal lines running from the bottom to the point and a thin covering skin that is shiny, fine, and of a light-reddish color, which darkens slightly after exposure to light and which can easily be removed by applying a little heat. The kernel is said to contain as high as 66 percent oil. The kernels are easily blanched and are highly prized for that purpose. This type of nut is reportedly the most popular for new and replacement plantings in Giresun.

The pointed Giresun has a shinier, lighter-colored, and more conical shell than the round Giresun and has a pointed end that is a little whitish and has lines running from the base to the point.

The kernel of the pointed Giresun is large and dull. The bottom is round but the balance of the kernel is conical in shape. The thin covering skin is light reddish and a little thicker than the skin of the round Giresun. The veins on the kernel can readily be seen and the flesh is yellowish. It is said the kernel has the best keeping qualities of any Giresun filbert.

The round Ordu is similar in characteristics and appearance to the round Giresun; however, it appears to run to slightly larger sizes. This variety is said to have a little better shelling ratio than its Giresun counterpart. It is reported that growers in the Ordu district have been expanding their acreage of this type, in view of the good yield and steady demand for it. Ordu growers have taken good care of their plantings and generally have younger bushes than those elsewhere in the filbert belt.

The pointed Ordu has much the same characteristics as the pointed Giresun. The shell is heavier and of a darker hue. In view of its heavier shell, the shelling ratio is not as good as that of the other types. The average kernel weight is less than that of the round Ordu and the kernel is lighter in color. Growers in Ordu generally are not particularly anxious to increase the acreage of this type.

The round Trabzon is a bulkier nut than the round nuts of Giresun and Ordu and its shelling ratio is not as good. It is lighter in color and has deep lines on the shell. It has a small uneven bottom. The kernels are covered with a light yellow-reddish skin, having lines separating the kernel into four parts.

The Fosa type is peculiar to the Trabzon district. It has the general characteristics of the round Trabzon nuts but it is larger and the width usually exceeds the length. The color is yellowish red, with the top being lighter than the base. The shell unlike that of most Turkish filberts is not shiny. It also has fewer traces of lines and the base is even, flat, and small. The top is perhaps less pointed than other types of Turkish filberts. The shelling ratio is slightly higher than that of the ordinary round nuts of the region and the round of Giresun. The kernel of the Trabzon Fosa is a little larger than that of most of the round nuts. It has a flat base, and the covering skin is dark red and a little thicker with heavier veins than the ordinary round of the region. The kernel has a relatively small hollow space in the center. It is gaining in popularity, probably because of its size and because it is said to ship well. Growers are reported to be concentrating on planting Fosa in new areas and on replacing the older bushes with it.

The pointed Trabzon is lighter in color and the shell a little shinier than other pointed Turkish filberts. The bottom is convex and has a dark-yellowish tint, while the lines have a darker-reddish tint. The average unshelled pointed Trabzon weighs slightly less than the round in the district as does the kernel. It generally has a slightly thicker outer covering than the round.

There are in addition to the types described above a number of other nuts that tonnage-wise are relatively unimportant. Among such types one finds Badem (Almond), Kara (Black), Kus (Bird), Kan (Blood), Ikiz (Twin), Dragon, and Palas (Palace). The Badem is a large almond-shaped nut and is generally exported in the shell. The shell is dark reddish and inclined to be flat on two sides. There are two types of Badem--the wild and the cultivated. The Kara is also found in two distinct types: The Iri Kara (large black), which has a thick blackish shell with a relatively poor shelling ratio, and the Ince Kara (small pointed black), which has a very thin shell and one of the best shelling ratios. The Kus type is reported to have one of the best shelling ratios in Turkey. It is peculiar to the Piraziz district of Giresun vilayet. The Kan has a reddish kernel and a relatively poor shelling ratio. It is also a poor bearer. The Ikiz is peculiar to the Ordu district and is reported to have the poorest shelling ratio of all. It has two kernels in each shell. The Palas has a striped shell. These types make up a very small percentage of total filbert production, and there are no apparent indications of any future increase, because, with the exception of the Badem, they are not as readily acceptable in the export trade.

According to the best available estimates, the production by types in the Turkish filbert belt averages about as follows: tombul (round) 75 percent, sivri (pointed) 20 percent, Badem (almond) 4 percent, and all others 1 percent.

There appears to be a definite trend toward planting the favorite types. In the preceding paragraphs it was pointed out that in Giresun the round is being planted on new land as replacements, that in Ordu the round nut is gaining in popularity, and that in Trabzon the Fosa--also a round nut--is favored. This trend is the result of various things, the chief among them being that round nuts are readily accepted in foreign markets, are less easily damaged in shelling, can more easily be blanched, and have better keeping qualities, better flavor, and better yields per bush. The credit for this approach to plantings goes largely to the Turkish agricultural and cooperative officials and to the leading exporters of filberts. The change from the old practice of more or less ignoring the type planted to one of more careful selection of preferred types has been going on for some years and will take many more years to complete. The grower cannot, under most circumstances, afford to cut down bearing bushes, plant new ones, and wait 5 years for his first crop. He makes the change to the more desirable types gradually and in connection with his regular operations. If he finds it necessary to remove a long Giresun bush, for example, he generally replaces it with a round. If he is planting a new acreage in Giresun, he probably will start with the round.

Harvesting

In Turkey, filberts are generally considered ready for harvest late in July or early in August, when the first nuts fall to the ground. The harvest begins in August, the time depending on location, climatic conditions, and other factors and is always finished by September. The harvesting date is officially set by a board consisting of the governor of the vilayet, agricultural officials, growers, and exporters. Deciding when the harvest is to begin is a very important matter. If nuts are harvested too green, considerable loss occurs and, if they are harvested too late, bad weather often prevents the gathering of the full crop. When the harvest is officially open, the nuts nearest the sea are collected first; then, those in the lower hills are gathered; and finally those in the higher regions are added to the harvest.

There are various arrangements with regard to who will do the harvesting and how it is to be done. Sometimes a grower will sell his crop unharvested, in which case the buyer arranges for the picking. Other times a grower makes his own arrangements to pick the fruit. There is a tendency away from selling the unharvested nuts, as the buyer usually gets all limbs, etc., for sale as fuel and in so doing generally manages to break more limbs than necessary in the picking operation.

In the Giresun district, owners living in the town and having filbert acreage nearby will contract to have someone pick and bring the nuts to town for one-fourth of the crop. If the acreage is some distance from the town, the owner may give half the crop to the man who harvests and transports it. If the owner lives on his property, he will hire pickers, who are paid either by the day or by the quantity harvested. In the Trabzon district the owner generally arranges to hire pickers as needed, while in Ordu the practice is to award the harvesting work to those offering the highest percentage of the crop to the owner. There are of course various other arrangements between the owners and harvest hands, depending on conditions and customs in the area involved.

The nuts, still in the husks, are picked from the bushes by women, boys, and old men into sacks or baskets slung from their sides. The hand picking method is used so that a minimum of damage occurs to limbs and shoots. It is estimated that the average filbert picker collects the equivalent of 45 to 60 pounds of unshelled nuts per day. The sacks and baskets when full are emptied into large burlap sacks on wagons or are dumped on the ground to await the husking operations.

Picking the filberts is a job far women and children in Turkey. The time far picking is decided each year by a board made up of officials, grawers, and exparters.

The nuts are usually allowed to dry for several days in the sun before they are husked. The handling of the nuts at this point varies with the localities and available facilities. In some districts husking machines mounted on animal-drawn wagons do the husking in or near the place where the harvest is taking place; in others the nuts are carried to a central point for machine husking. In many districts the husking is done by hand.

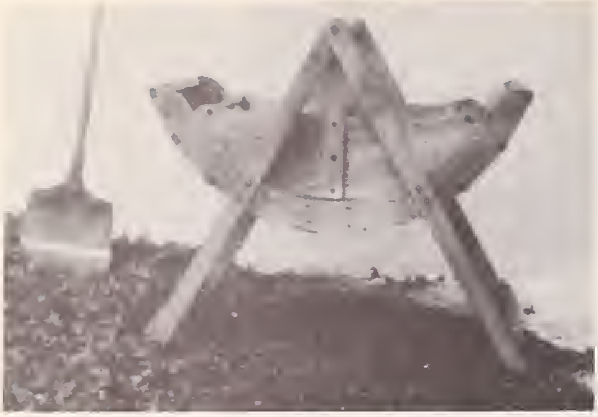
The hand-husking method is relatively simple. The husks are spread on the ground and then lightly beaten with thin rods or with shoots taken from the bushes. When the workers have separated the husks from the nuts, the husks are pushed to one side with a wooden rake. The husks are of some value as fuel and are usually saved for that purpose.

The next step is drying the unshelled nuts. This step is essential in the Black Sea area where, because of the rains and dampness from the sea, the nuts may become moldy. In cases of extreme dampness of the nuts, occasional damage is done to the kernels, and, unless nuts are carefully selected before shipment abroad, moldy nuts may arrive at the foreign destination. Kernels mold partly because the nuts were unripe when picked and partly because the storage was poorly ventilated. Frequently the dampness discolors the shells, but because the bulk of the harvest is generally shelled for export discoloration is of minor importance.

The drying operation, like that of husking, differs a little from area to area. In Giresun the nuts are spread out on the pavement in one of the town squares and traffic is blocked off for the duration of the drying period. In other areas the nuts are spread on the floors of buildings. When the nuts are dried inside, the room is generally heated by a stove of some sort that burns filbert shells, wood, or other combustible material readily available in the area. Coal is sometimes used but must be brought in.

In many places the nuts are left on the ground to dry after husking. Sometimes they are spread on canvas sheets, which while a little more expensive than putting them on the ground, floor, or pavement, offers many obvious advantages.

Regardless of how the nuts are dried, they are turned over from time to time with rakes or shovels to insure uniform drying. A certain amount of care must be taken in drying the newly



Rocker-type filbert huskers are common in Turkey.

husked unshelled nuts. If they are insufficiently dried, the kernels become bitter and mold or rot; on the other hand, if the nuts are overdried, they lose considerable weight and the brown skin covering the kernel is apt to come off. The lack of this brown membrane on the kernels reduces the length of time the kernel will remain fresh.

Unshelled nuts stored in wooden bins or on wooden floors are frequently attacked by an insect of the termite type, which bores a hole in the shell. Loss from this cause is estimated to run from 3 to 5 percent of the total crop.

Criteria used in forecasting and estimating the Turkish crop is similar to that used elsewhere, depending as it does on weather, insect damage, cycles of production, etc. In the commercial filbert belt a number of age-old indications are employed to form the early-season ideas of the probable harvest. The weather in March is the first of these indications. If it is clear and relatively warm a good crop is indicated. If it is wet, cloudy, and windy a poor crop is expected, the weather in this case affecting pollination.

If the April weather is clear and relatively warm, it also points to a good crop with little insect damage. If the weather is wet and cloudy, it is generally thought the weevil, Balaninus nucum L., will cause considerable damage and a smaller crop will be harvested. The full effect of the damage by this insect will not be apparent until later in the season.

If the May weather is warm with sufficient showers, a good quality crop of at least average or better tonnage is expected. If the rains are excessive and accompanied by cold weather, fungi form on the bushes and buds. This causes diseases and an excessive drop of immature fruit. It is also said to be a condition favorable to the weevil.

As stated earlier June is the first month that many people in the filbert belt will give a quantitative forecast of the new crop, for by the end of that month the immature nuts containing the weevil grub and the empty shells have usually been blown off the trees and the forecasters know whether there has been ample rain for full development of the nuts.

The final month in the development of the nuts is July. It is during this month that the nuts begin to ripen. Those that are going to drop before harvest are generally gone by the first half of July and the most accurate forecast of the coming harvest is then possible. In July, growers and buyers begin their preliminary talks leading to eventual sale of the new-crop nuts.

Production

The largest crop on record, according to Turkish statistics, was 100,990 short tons, unshelled basis, in 1939 and the second largest was 93,700 tons in 1946.

By districts, Giresun in generally the largest producer. During the 25-year period 1925-49 Trabzon, the second largest producing district, exceeded Giresun only six times (1929, 1931, 1932, 1938, 1941, 1945). The Ordu district is generally the third largest producer, followed by Akcakoca. It is usually stated that a good crop follows a poor one and that after record crops a very poor one is to be expected. The estimates of production in table 5 seem to bear out this contention, although it may be observed that occasionally two fairly good crops (1932-1933 and 1936-1937 for instance) in succession are harvested. The same observation also applies to poor crops, as in 1940 and 1941. The smallest harvest during the period under review (1925-49) was 7,990 short tons in 1929.

The trend of production appears to have been upward during the past decade, although a very poor harvest was reported for 1950. This crop followed a near-record harvest and was beset by considerable adverse weather and insect damage during most of the season. Production in the Akcakoca district increased from 620 tons in 1925 to 4,960 tons in 1949 and one hears that a further expansion in acreage and production is to be expected in the years ahead.

Production in Giresun reached an all-time high in 1939, when 48,390 tons were produced. The largest crop in Giresun since then was in 1949--35,270 tons. The smallest crop in Giresun was 1,980 tons in 1929. The Trabzon district reached its all-time production record in 1939, with 33,310 tons, and its second largest harvest in 1946, with 33,070 tons. The smallest crop on record in this district was 2,780 tons in 1929. In the Ordu district the 10-year average (1940-49) harvest was somewhat higher than that of the earlier years. The largest harvest on record during the 1925-49 period in Ordu was 23,150 tons in 1946 and the second largest, 22,600 tons in 1949. The smallest was 1,910 tons in 1929. It is said that the average age of bushes in Ordu is lower and that they receive better care than those elsewhere.

In the future another upward trend in production is possible. The acreage devoted to filberts in the three older districts probably will not increase greatly, since most of the suitable land has already been planted. Higher production in these districts will result from better cultural practices and from the gradual replacement of less desirable types of filberts. The total crop for Turkey can increase because of the growing acreage and production in Akcakoca and other newer areas. (The production in other parts of Turkey is not included in this report, as it is almost entirely consumed in the domestic market.)

In addition to the factors already mentioned, the world political and economic situation will play an important part in the future of the Turkish filbert industry. If export markets continue to absorb the Turkish filbert crops at prices considered remunerative, some additional acreage may be planted and, in turn, production increased. If, because of poor prices, war, or restrictive measures in the principal importing countries, the production of filberts becomes less attractive, output could decline.

TABLE 5.--Production of filberts by districts, unshelled basis, averages 1925-49, 1940-49, 1945-49, annual 1925-49

Year	Akcakoca	Giresun	Ordu	Trabzon	Total
	Short tons	*Short tons*	*Short tons*	*Short tons*	*Short tons*
Average:					
1925-49	1,820	22,410	11,870	16,570	52,670
1940-49	2,370	23,290	15,410	18,930	60,000
1945-49	3,410	25,150	17,440	20,730	66,730
Annual:					
1925	620	27,230	9,920	18,740	56,510
1926	700	10,580	10,580	3,860	25,720
1927	840	29,420	14,110	15,430	59,800
1928	1,010	9,920	4,800	9,260	24,990
1929	1,320	1,980	1,910	2,780	7,990
1930	1,850	24,000	10,580	17,910	54,340
1931	1,980	9,590	5,890	10,200	27,660
1932	1,650	18,220	9,080	18,520	47,470
1933	940	27,510	8,560	12,350	49,360
1934	1,140	16,370	6,750	10,500	34,760
1935	1,360	24,530	11,570	20,410	57,870
1936	3,610	35,760	9,150	11,960	60,480
1937	3,390	31,820	12,010	26,460	73,680
1938	660	11,940	9,280	13,230	35,110
1939	770	48,390	18,520	33,310	100,990
1940	880	11,240	7,690	10,570	30,380
1941	990	9,460	4,750	11,680	26,880
1942	1,540	29,500	15,540	28,660	75,240
1943	1,430	25,570	19,070	12,680	58,750
1944	1,770	31,390	19,840	22,050	75,050
1945	2,200	11,680	12,130	13,230	39,240
1946	2,760	34,720	23,150	33,070	93,700
1947	3,300	19,840	17,750	18,740	59,630
1948	3,860	24,250	11,570	12,130	51,810
1949	4,960	35,270	22,600	26,460	89,290

Source: "Findik Bilgisi," by Kemal Peker, Ege Matbaasi, Istanbul, 1950.

Marketing by Growers

After the filberts have been dried, they are put into burlap bags or other containers, generally on the premises of the grower until he is ready to sell them. He has three outlets for his filberts. The first is the small brokers, who buy any quantity from a few pounds to the entire harvest of a grower. These small operators collect filberts at their place of business until they have a sufficient quantity to sell either to a large broker or to a shelling plant. The small brokers make their living by adding a small amount to the purchase price.

The second group of buyers consists of the large brokers and shelling plant operators. Growers may sell their produce directly to these outlets. Some shelling plants have men who go to the weekly markets or to growers direct and buy for the shellers on a commission basis. There are certain market days at which the growers can sell on the public market. In Giresun and Espiye the market is held on Monday; in Kesap and Yolagzi on Wednesday; in Piraziz on Thursday; and at Bulancak on Saturdays. This custom is followed only in the vilayet of Giresun. In other vilayets, the nuts are sold only in the produce exchange market. The prices paid growers by buyers are usually determined by sampling and cracking nuts from each lot offered.

The cooperative is the third outlet open to growers. In Turkey, as in the United States, the grower member delivers his filberts to the cooperative, which in turn finally makes the sales. The cooperative does not control the largest percentage of the tonnage but is understood to be gaining steadily. The nuts, once in the hands of shellers whether cooperative or private, usually follow much the same route in reaching foreign markets.

Shelling

Usually the nuts are not sold until they are husked and dried. The filberts that are generally considered best for shelling are those that break easily without damage to the kernel or thin brown skin covering the kernel. The nuts must not be too dry when fed into the cracking machines, for, if they are, a large percentage is damaged in the shelling operation. The kernels must be full and have a good appearance. They must also be good keepers when shelled. The prevailing notion is that oval nuts are more frequently harmed during the shelling operations than round ones, and some shellers prefer not to handle oval types. It is believed that the slightest bruise or break in the thin brown inner skin will cause the nuts to spoil.

There are 49 filbert shelling plants in Turkey, the largest of which is the cooperative plant in Giresun. The plants range from the very small and primitive to the large, mechanized cooperative plant. The capacity varies according to the size of the plant and the workers available. In the Giresun district there are 25 plants employing as many as 1,270 workers, most of whom are women, during the height of the season. In the Trabzon district there are 14 plants employing 611 workers and in Ordu 10 plants with 305 employees. These figures indicate an average number of employees of 51 per plant in Giresun, 44 in Trabzon, and 30 in Ordu. The plants by American standards are not modern, and most of the equipment for shelling is old, made locally or imported from European countries many years ago. There is a certain amount of sanitary inspection carried out in the shelling plants by government inspectors.

The plant of the cooperative, Findik Tarim Satis Kooperatifleri, in Giresun is the largest and most modern in Turkey. It is located just off the beach on the western side of Giresun. The equipment is of both domestic and foreign manufacture. The nuts are brought to the plant by growers in burlap bags, weighed in, and dumped into large bins for storage until needed. The nuts are next put through a blower, or sifter, which takes out leaves, husks, stones, sticks, and other

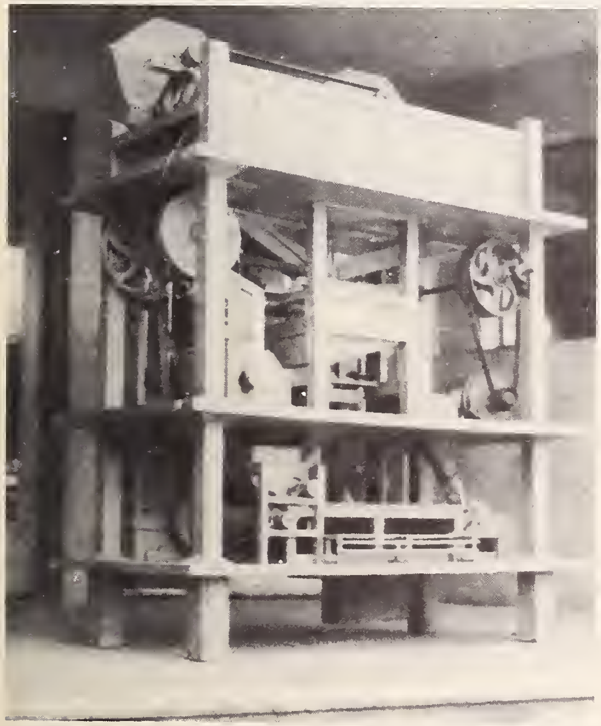
The largest shelling plant in Turkey is the cooperative at Giresun. Its capacity is 40 metric tons of unshelled nuts per 8-hour day.

extraneous material. Then, they are run through screens for grading according to size. Generally, nuts are not shelled until an order has been received, as they keep better in unshelled form.

The next step is the actual shelling of the nuts. The shelling machine consists of two millstones--one stationary and the other revolving. The stones are adjusted to accommodate the various size filberts. The unshelled nuts drop through a central hole in the top millstone. They are fed into the shelling machine slowly and as the revolving stone moves it cracks the shells. The shells and kernels fall through an opening in the stone and are put through a blower, which separates most of the shells from the kernels.

According to leading shellers, tests have been made of roller-type crackers , such as are employed elsewhere, but because of the thin shells of Turkish filberts too much damage to kernels occurs. It is thought another reason for the damage is that Turkish filberts are usually well filled, leaving no space between kernel and shell, as is generally true of filberts grown in other countries.

After going through the blower, the kernels - and some shells - are put through a mechanical grading cylinder, which sorts the kernels by size and further removes bits of shell, etc. The kernels are then put on sorting tables where defective kernels and any remaining bits of shell are removed by hand. (Many women are employed in the sorting operations; they receive about 50 cents per 8-hour day plus food.) The kernels then go through a sieve for final grading by size and are put into bulk storage or into burlap bags, weighing 176 pounds, for export. Sometimes, filbert kernels are blanched and packed in 112-pound wooden cases.


In the modern plants, filberts are cracked by machines like the one shown here.

Privately owned plants are operated in much the same way as the cooperative described above. They do not as a rule have as much machinery or as many workers, nor are they as modern. Their operations are on a much smaller scale and considerable hand labor is employed. The cracking of the shells in plants is almost universally done by the use of millstones. When nuts are hand cracked, implements similar to a hammer and block of wood or large stone are used. The block or stone is placed on the floor and the workers sit around it with baskets of nuts to be cracked. This method of cracking is going out in shelling plants but is commonly used in the homes of some growers, whose families crack nuts in the off season and then sell the kernels whenever a market can be found for them. At best, hand cracking is expensive even in an area where labor is cheap. The small grower believes it more profitable to sell kernels than unshelled nuts, since he gets a little additional money for his labor and, perhaps more important, he retains the shells for fuel.

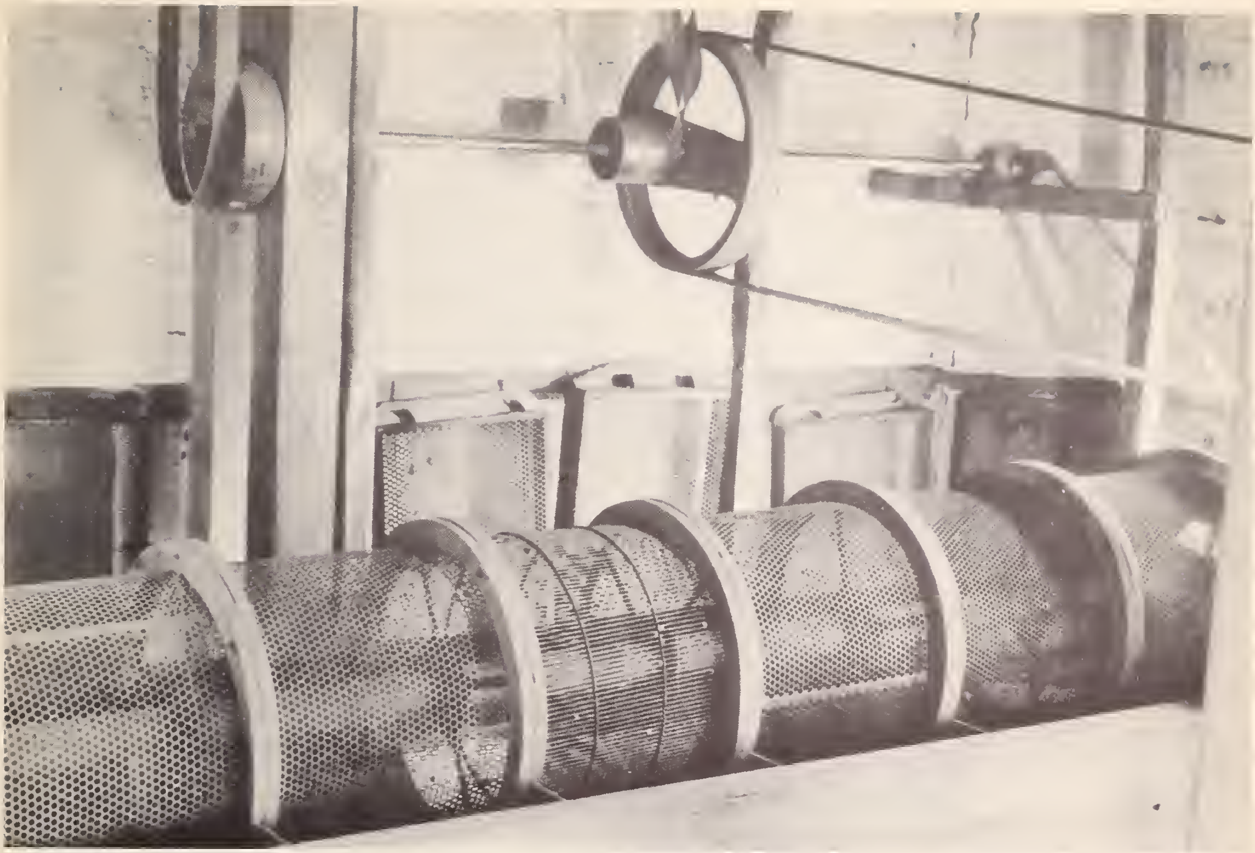
Filbert shells are valued as a fuel in Turkey and in the growing areas are readily sold. Shells were sold in 1950 in bags weighing 88 to 110 pounds for 120 to 200 Turkish kurus, (about $9 to $12.80 a short ton); at the same time, coal was sold for about $48 a ton. The coal was shipped in from the mines at Zonguldak, on the Turkish Black Sea Coast about 150 miles east of Istanbul. The filbert shells are used in bakeries and also in homes, where they provide fuel for cooking and heating. The average family in the filbert region finds coal rather expensive and therefore substitutes filbert shells and wood. It can be seen from this account of the value of the shells that it will be a long time, if ever, before cracking filberts in the home entirely gives way to commercial cracking by modern machines. In addition to being extensively used for fuel, filberts are used to color wine and to make vegetable carbon for absorbing gases and bad odors.

The shelling ratio, unshelled to shelled nuts, varies considerably in Turkey as everywhere in the world, depending on the year, quality of unshelled nuts, variety, amount of foreign matter

Cracked filberts go through a blower that separates the kernels from the shells.

mixed with the nuts received at the shelling plant, size of nuts, area in which grown, moisture content, and many other factors. In former years it was generally thought that it required 2.5 pounds of unshelled nuts on the average in a normal year to produce 1 pound of sound kernels. This ratio seemed to be somewhat too high and in 1950 I discussed the matter with a number of Turkish authorities. According to tests they made, the shelling ratio varies from about 2.9 to 1 on the Dragon variety to 1.8 to 1 for the Kus variety. For the varieties most widely known and produced, such as the round Giresun, the ratio appears to be slightly more than 2.1 to 1 and for round Trabzon, 2.2 to 1. After considering all factors, it appears that an average of 2.2 to 1 for Turkish filberts is a more realistic one. This assumes average quality nuts in a normal year. The ratio in years of heavy insect or other damage may have to be adjusted.

The Turkish filbert shelling industry, like others elsewhere in the world, accumulates a certain quantity of small, damaged, or spoiled kernels during the shelling season. The disposal of such nuts in an economical manner always presents a problem. In Turkey, the baby kernels, if sound, are frequently mixed with standards and thus disposed of in export channels. There are an estimated 600 to 1,000 tons of baby kernels a year. The broken but otherwise edible nuts and some of the baby kernels are sent to oil mills for the extraction of edible filbert oil. The quantity used by the oil mills varies from year to year with the size of the olive oil and other edible oil production and prices at which edible oils can be purchased. The rancid, or inedible, nuts and the poorer grade edible nuts and pieces are frequently made into industrial oil. Apparently, there is practically no waste in the filbert industry in Turkey. The combustible materials from the bushes, husks, and shells are used for fuel and every possible use is made of the



Filbert kernels are graded in cylinders. Kernels fall into bins through the various size mesh covering the several sections of the cylinder.

kernels. One member of the industry said "we don't even waste the sound of the cracking machine; it's put in our radios." While this was intended as a joke, one would believe it true from the static frequently heard over radios in the area.

Cooperatives

There are two types of cooperatives in the Turkish filbert growing districts--credit cooperatives and sales cooperatives. Both are of comparatively recent origin, but they play a very important part in the industry. The Agricultural Credit Cooperatives, known in Turkey as the Tarim Kredi Kooperatifleri, were created by the government in 1929 for the purpose of supplying credit to tide farmers over from one harvest to another and to enable them to improve their farming practices and their homes and villages. The credit co-op supplies money for these purposes at low interest rates and frequently with less security than required by commercial banks. It is often said that growers are reluctant to borrow money from the cooperative for the purpose of improving their filbert plantings, and that frequently money borrowed for this purpose is spent for other things and no improvement is made in the filbert orchards. This may be true, but based on personal observations it would appear to be more serious than in other countries where similar circumstances of credit occur.

The importance of the Agricultural Credit Cooperatives can be best illustrated by the fact that in 1930, 1 year after they were organized, there were 191 such cooperatives covering 367 villages and having 20,170 members; today there are more than 823 credit cooperatives that cover 8,209 villages and have a membership of more than 368,700.

The second type of cooperative found in the filbert area is the Filbert Agricultural Sales Cooperative, known in Turkey as Findik Tarim Satis Kooperatifleri. The legislation establishing this co-op was passed in 1935. The purpose was to assist farmers in selling their produce to the best advantage. Prior to this legislation there were few cooperative sales groups of any type in the country and farmers were compelled to sell their produce for whatever prices local or itinerant buyers would offer. This procedure usually resulted in poor returns and other unsatisfactory conditions in the industry. The establishment of the Sales Cooperative was a logical second step after the organization of the Agricultural Credit Cooperatives.

The first Filbert Sales Cooperative was organized in 1938 at Ordu and became known as Filbert Sales Cooperative #29. The next one was put into operation in Trabzon and today there are 16 such cooperatives in the filbert districts. All the local Filbert Sales Cooperatives belong to the Central Cooperative in Giresun in the center of the filbert area. It is reported there are at present about 42,600 members in the 16 local cooperatives.

The Sales Cooperatives undertake to receive, process, and sell the filberts delivered by members to the packing plants. (The largest filbert packing plant in Turkey is the cooperative plant in Giresun.) In order to become a member a farmer must pay about $3.60 to join and deliver to the cooperative at least 440 pounds of unshelled nuts per season. It is reported that occasionally some growers fail to deliver their filberts to their cooperatives for various reasons; however, the cooperative movement seems to be successful.

Exports

History of Exports

The beginning of the international filbert trade is lost in antiquity but, according to Greek, Chinese, and Turkish history, exports in a small way were made from the Black Sea areas

TABLE 6.--Exports of specified tree and vine fruits, volume

Year	Almonds[1]		Filberts				Pistachios[1]	
			Unshelled		Shelled			
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
	Short tons	*$1,000*	*Short tons*	*$1,000*	*Short tons*	*$1,000*	*Short tons*	*$1,000*
Average:								
1939-43.......	287	185	1,778	278	17,064	6,583	1,019	377
1944-48.......	316	218	3,171	1,032	20,104	11,969	1,643	1,606
1939-48.......	302	201	2,475	655	18,584	9,276	1,331	991
Annual:								
1939..........	453	173	2,768	312	18,564	6,132	1,222	442
1940..........	248	99	3,591	273	18,960	3,497	1,610	416
1941..........	313	184	249	41	19,321	5,234	1,248	369
1942..........	120	153	295	72	12,428	6,986	149	78
1943..........	303	315	1,987	692	16,047	11,069	866	579
1944..........	148	133	2,533	729	12,937	8,108	1,292	858
1945..........	84	49	2,713	780	14,679	8,734	468	497
1946..........	785	501	3,851	1,552	25,634	19,259	2,900	2,997
1947..........	515	375	2,266	788	28,774	14,228	2,518	2,523
1948..........	50	32	4,494	1,310	18,498	9,515	1,037	1,155
1949..........	387	265	4,883	1,316	29,853	13,957	1,289	832
1950..........	428	173	1,153	318	28,218	17,929	4,820	3,193

[1] Shelled and unshelled not separately classified.

Source: "Istatistik Yilligi,"

even before Christ. A leading Turkish authority on this subject states that Genoese traders in the eleventh century acquired filberts along the Black Sea and carried them to what was then the world markets. The next more or less authentic record of such trade in filberts indicates that in 1773 they were taken to the fair in Nijni, Russia, and exchanged for velvet and leather. The next destination for Turkish filberts is reported to have been Rumania, in 1792, and finally they went to Belgium in 1875. It is also claimed by the newspaper Ceridei Navadis that Turkish filberts were exhibited in the international fair in London in 1851.

All of these early exports were unshelled nuts. The first authentic record of the exportation of shelled filberts appears to be in 1889, but the country of destination is not available. The first official statistics on the exportation of filberts began in 1878, and report value only; unfortunately the statistics do not show shelled and unshelled separately. The value reported in 1878 was $294,565. Since then filbert trade has grown steadily and, by 1950, shelled and unshelled nuts sold abroad were valued at $18,247,000.

According to historians, the Turkish people first became seriously interested in the export and commercial possibilities of filberts about 100 years ago. The expansion of acreages and production was considerable. It is recorded that the first Turkish company for the exportation of filberts was formed about 1879 and was successfully engaged in this trade until about 1903. Historians claim the company was bankrupt as a result of the Cretian War, when many of its shipments were lost.

The exportation of filberts has continued through the years with various periods of prosperity and depression, war and peace, change of government in Turkey, and increased competition from other producing countries. Through all of these things the exportation of filberts has been one of the principal sources of agricultural income and foreign exchange.

and value, averages 1939-43, 1944-48, 1939-48 and annual 1939-50

Walnuts[1]		Dried figs		Raisins		Total tree and vine fruits		Filberts as percent of total	
Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Short tons	*$1,000*	*Short tons*	*$1,000*	*Short tons*	*$1,000*	*Short tons*	*$1,000*	*Percent*	*Percent*
799	256	22,061	2,448	28,356	4,645	91,841	14,772	43	46
1,925	840	21,902	5,111	47,208	12,772	120,395	33,548	39	39
1,362	548	21,981	3,779	37,782	8,708	106,118	24,158	41	41
1,639	516	31,562	3,323	39,749	4,122	118,234	15,020	37	43
914	170	20,895	1,270	32,995	2,336	101,965	8,061	44	47
785	237	36,468	3,016	33,159	4,957	114,728	14,038	37	38
597	326	17,443	2,839	22,150	6,702	68,096	17,156	41	41
58	29	3,936	1,791	13,729	5,107	56,182	19,582	66	60
280	130	11,242	3,097	46,286	16,007	90,242	29,062	34	30
441	191	15,596	3,357	43,960	9,936	95,556	23,544	37	40
2,140	1,226	27,316	9,055	66,494	18,519	159,881	53,109	38	39
2,701	1,196	26,447	5,163	35,293	9,448	133,043	33,721	49	45
4,064	1,458	28,908	4,881	44,009	9,949	123,258	28,300	37	38
4,358	1,711	19,155	3,791	70,092	16,198	165,840	38,070	43	40
2,493	769	21,649	4,613	88,091	20,355	180,714	47,350	35	39

Government of Turkey, Ankara, 1949.

TABLE 7.--Exportation of filberts, shelled and unshelled, by country of destination, averages 1940-44 and 1945-49, annual 1939-50

Year	Egypt	France	Germany	United Kingdom	United States	Others	Total
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
	Unshelled						
Average:							
1940-44	282	130	5	292	77	945	1,731
1945-49	779	0	0	790	48	2,024	3,641
Annual:							
1939	831	388	15	394	22	1,118	2,768
1940	778	649	10	1,437	52	665	3,591
1941	112	0	0	0	0	137	249
1942	44	0	0	22	0	229	295
1943	184	0	6	0	331	1,466	1,987
1944	291	0	11	0	0	2,231	2,533
1945	579	0	0	0	41	2,093	2,713
1946	660	0	0	86	105	3,000	3,851
1947	635	0	0	2	49	1,580	2,266
1948	1,162	0	0	2,028	11	1,293	4,494
1949	859	0	0	1,834	33	2,157	4,883
1950	471	0	0	0	0	682	1,153

Year	France	Germany	Italy	Netherlands	Rumania	United Kingdom	United States	Others	Total
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
	Shelled								
Average:									
1940-44	309	5,684	59	54	160	722	955	7,996	15,939
1945-49	435	1,063	12	200	2	4,500	2,852	14,424	23,488
Annual:									
1939	3,319	2,972	31	284	175	2,630	851	8,302	18,564
1940	1,128	2,933	65	26	221	3,546	991	10,050	18,960
1941	375	10,830	44	0	460	29	53	7,530	19,321
1942	30	3,607	88	244	84	11	0	8,364	12,428
1943	0	5,724	100	0	11	0	3,298	6,914	16,047
1944	14	5,324	0	0	26	22	432	7,119	12,937
1945	0	0	0	0	10	116	6,610	7,943	14,679
1946	169	0	58	998	0	907	5,151	18,351	25,634
1947	700	0	0	0	0	6,723	1,735	19,616	28,774
1948	131	111	0	0	0	6,153	562	11,541	18,498
1949	1,175	5,205	0	0	0	8,600	201	14,672	29,853
1950	1,996	6,185	0	0	0	8,185	203	11,649	28,218

Source: "Istatistik Yilligi," Government of Turkey, Ankara, 1942, 1945, 1949, 1950.

TABLE 8.--Exportation of filberts, shelled and unshelled, averages 1925-29 to 1945-49, annual 1925-50

Year	Unshelled	Shelled	Total (unshelled basis)[1]	Percent unshelled of total	Percent shelled of total
	Short tons	*Short tons*	*Short tons*		
Average:					
1925-29	2,998	13,622	32,966	9	91
1930-34	3,539	17,303	41,606	9	91
1935-39	3,068	22,722	53,056	6	94
1940-44	1,731	15,939	36,796	5	95
1945-49	3,641	23,488	55,314	7	93
Annual:					
1925	4,900	14,991	37,880	13	87
1926	2,096	14,987	35,067	6	94
1927	5,022	17,348	43,188	12	88
1928	2,075	15,771	36,771	6	94
1929	897	5,013	11,926	8	92
1930	7,818	15,884	42,763	18	82
1931	2,133	14,706	34,486	6	94
1932	2,767	19,445	45,546	6	94
1933	3,640	17,668	42,510	9	91
1934	1,338	18,812	42,724	3	97
1935	5,983	22,000	54,383	11	89
1936	1,202	25,301	56,864	2	98
1937	4,170	22,776	54,277	8	92
1938	1,215	24,968	56,145	2	98
1939	2,768	18,564	43,609	6	94
1940	3,591	18,960	45,303	8	92
1941	249	19,321	42,755	1	99
1942	295	12,428	27,637	1	99
1943	1,987	16,047	37,290	5	95
1944	2,533	12,937	30,994	8	92
1945	2,713	14,679	35,007	8	92
1946	3,851	25,634	60,246	6	94
1947	2,266	28,774	65,569	3	97
1948	4,494	18,498	45,190	10	90
1949	4,883	29,853	70,559	7	93
1950	1,153	28,218	63,233	2	98

[1] Shelled converted to unshelled, 2.2 to 1.

Source: "Istatistik Yilligi," Government of Turkey, Ankara, 1949 and 1951.
"Findik Biligisi," by Kemal Peker, Ege Matbaasi, Istanbul, 1950.

Export Standards

Export regulations on standards have been in effect since 1937 and have been strictly enforced. (The current regulations appear in the appendix to this report.) The regulations require that nuts sold as round may not include more than 10 percent of pointed varieties and 3 percent of others and that the pointed nuts may not include more than 10 percent round and 3 percent other varieties. Other varieties shipped under their specified names, such as Fosa, must contain at least 70 percent of that variety. Lots of nuts containing less than the legal percentages must be labeled "mixed" and so billed in order that the foreign buyer will be fully aware of the type merchandise he has purchased.

The regulations are quite definite as to sizes of nuts, degree of humidity, and the tolerances for defective nuts in shipments of shelled. They also prohibit the mixing of nuts from different crop years; thus any carry-over from the 1952 crop cannot be mixed with the 1953 crop and sold as 1953 nuts.

The regulations on containers specify that bags must be either new or in sufficiently good condition to stand shipment to destinations without breaking. A bag of sound shelled filberts contains 80 kilograms gross (176 pounds); damaged nuts are packed in 50-kilogram (110 pound) bags. The weight of the empty bag must be indicated. The bags show buyer's mark, number, and country of destination on one side. On the other side they carry the various regulation data required by Turkish law. These data include at the top the word "Turkiye" (Turkey) and at the bottom "Findik" (filbert). In the center on the same side is information on whether the nuts are shelled or unshelled, the grade, crop year, control number, and type.

American importers and users of Turkish filberts who have seen bags of Turkish shelled filberts are frequently bewildered at the various notations and signs on the bags. Listed below are the principal signs likely to be found on such bags and the English equivalents:

Sign	Turkish	English
T.I.E.	Tombul lc Ekstra	Round, shelled, extra large
T.I.S.	Tombul Ic Sira	Round, shelled, medium
T.K.K.	Tombul Kabuklu Kirik	Round, unshelled, broken-cracked
S.K.K.	Sivri Kabuklu Kirik	Pointed or long, unshelled, broken
S.K.S.	Sivri Kabuklu Sira	Pointed or long, medium, unshelled
B.K.	Badem Kabuklu	Almond shaped, unshelled
C.I.	Curuk Ic	Shelled, spoiled
V.1.	Vurgun lc	Shelled, damaged
K.I.	Kirik Ic	Shelled, cracked-broken
BZ.1.	Bozuk Ic	Shelled, spoiled
IK.I.	Ikiz Ic	Shelled, twins
T.K.E.	Tombul Kabuklu Ekstra	Round, unshelled, extra large
T.K. (naturel)	Tombul Kabuklu	Natural round, unshelled, orchard run
T.K.1.	Tombul Kubuklu Ince	Round, unshelled, small
S.K.E.	Sivri Kubuklu Ekstra	Long or pointed unshelled, extra large
S.K.K.	Sivri Kabuklu Kriple	Long or pointed, unshelled sifted-selected
S.K. (naturel)	Sivri Kabuklu	Natural long or pointed, unshelled, orchard run
S.K.1.	Sivri Kabuklu Ince	Long or pointed, unshelled small
F.K.	Fosa Kabuklu	Large, bright, unshelled

"Naturel" are considered orchard run in the case of unshelled and sheller run in the case of shelled.

All filberts that are to be exported are inspected by government appointed inspectors. These inspectors are located at Trabzon, Tirebolu, Giresun, Ordu, and Fatsa, all export centers in the filbert district. The purpose of these inspections is to see that the goods to be exported meet the legal grades and standards. If after a careful inspection the filberts are found to be clean and sound and to meet all other requirements, a control seal is put on each bag and a certificate is issued permitting export. The export certificate must be presented to customs officials before the filberts may be loaded on a ship for export.

The system of inspection employed is fixed by law and is uniformly followed by inspectors. The inspector selects about 5 percent of the bags to be sampled. They are weighed to make sure they contain the proper quantity of nuts. The contents of the bag are then removed, and the inspector places about 800 kernels on a special board and examines them for quality. If he is not satisfied he turns the board over, selects 200 kernels at random, and puts them in the 200 holes that have been bored in the bottom side of the board. He now gives the kernels an individual examination. To pass, the kernels must conform to specifications as to quantity of round or pointed as the case may be and as to percentage of chipped, spoiled, rancid, and shriveled

Some filberts are still cracked and sorted by hand in Turkey, a general practice in 1900 when this picture was taken.

kernels. Moisture content cannot exceed 5 percent unless it is a particularly bad season, in which case the authorities can allow an additional one-half percent moisture. The inspector retains two samples of each lot in hermetically sealed containers for a minimum of 60 days.

These inspections are authorized by Laws Nos. 1705 and 3018. They were passed for the purpose of insuring foreign buyers against unscrupulous export practices and of maintaining the reputation of Turkish filberts in foreign markets. Before this inspection law was put into effect, frequent complaints were received from foreign buyers and litigations were common. According to the best available information on the subject, foreign buyers have been generally well pleased with the effectiveness of the inspections, and complaints now are relatively few.

In addition to the inspection certificates, there are also certificates of origin issued by the various chambers of commerce. All persons engaged in selling and buying filberts must be registered in the local chamber of commerce. This provision is intended to keep unscrupulous persons from engaging in the filbert trade, as well as to certify the origin of the nuts. No experienced foreign buyer would think of buying from any firm or person not so registered. In view of the different qualities and grades in the several production zones, the certificate of origin safeguards the buyer on his purchase. The chambers of commerce also try to regulate fair trade in their areas in other ways, such as preventing excessive speculation, preparing statistical records, and making crop estimates.

Export Cooperatives

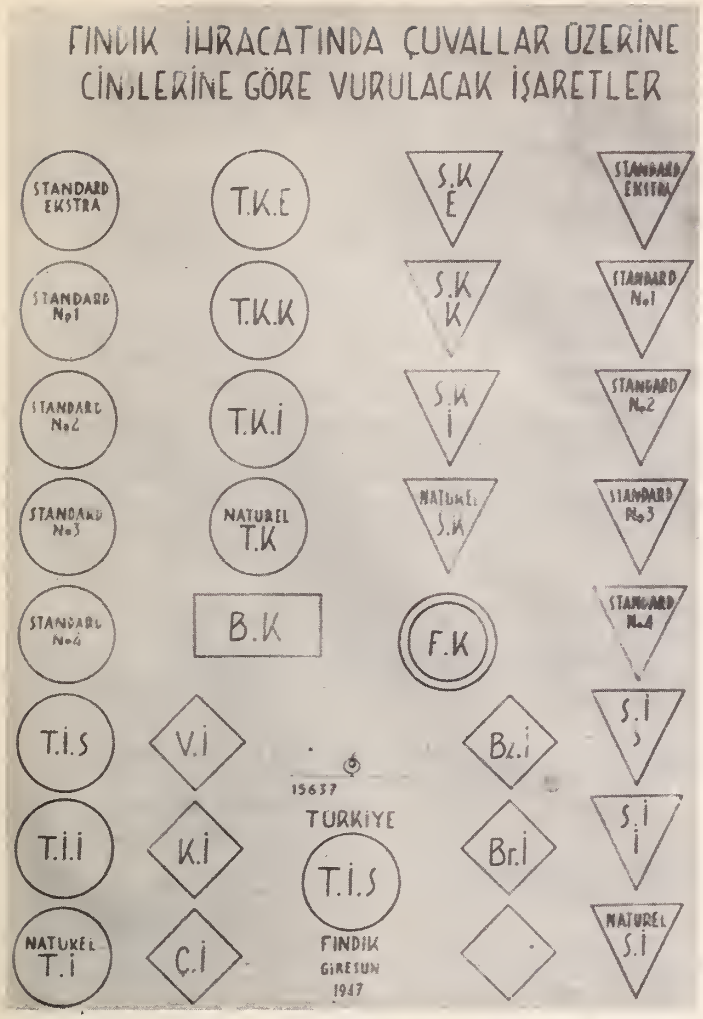
The export sales of Turkish filberts are accomplished through private export firms and the sales cooperatives. Both are affiliated with the Union of Turkish Filbert Exporters, which was set up in 1940 at Giresun. It still has its headquarters there but maintains branches in Trabzon and Istanbul. The principal aim of the union is to fix minimum export prices for each year's crop to protect the growers from receiving ruinous prices for their filberts. Legally no exporter is permitted to offer filberts for less than the minimum prices fixed by the union. But attempts are made, of course, to circumvent the provision, usually by selling through a third country.

The activities of the union are governed by statutes approved by the Ministry of Commerce. The union meets from time to time to determine what the minimum export prices should be and to make recommendations to the Ministry of Commerce that will benefit the industry. There is an annual meeting in January, at which time the Board of Directors make their annual report and the directors for the next year are elected. The board consists of 8 members. There are 260 members of the union in various parts of the country.

Turkey filberts ready for export.

Export Sales Today

Most of the export sales of filberts today, both shelled and unshelled, are effected through exporters located in Istanbul. The rest are made through exporters in the Black Sea towns, who sell directly abroad. In pre-World War II days, it is said, the largest percentage of the nuts were sold for shipment direct from Black Sea ports. There were several reasons for the shift from the Black Sea towns to Istanbul: [The Black Sea towns are somewhat cut off from the international markets, and developments in these markets are inclined to be much slower in reaching the towns than a world trade center like Istanbul.] In addition, exporters in Istanbul also deal in products not produced in large quantities in the filbert area, such as walnuts and similar Turkish



Bags of Turkish filberts for sale abroad carry at least one of these symbols.

export items. The export firms in Istanbul in many instances have branches in many countries, which enables them to make quick transactions when warranted.

The matter of ocean shipment from the Black Sea ports to foreign destinations also offers a problem and is partly reponsible for the sales headquarters being moved from the Black Sea to Istanbul. The Black Sea ports have few docks to which large ships can moor. All freight to and from these ports must be lightered to the ships anchored offshore. This method of handling cargoes is satisfactory as long as the sea remains calm, but during much of the filbert shipping season the sea is not calm. During winter storms ships are delayed for days, which is a costly matter for the steamship owner and an expense that he does not accept unless necessary. In addition, it was found that the average shipment was too small to warrant sending a large ship through the Bosporus and several hundred miles beyond. There are of course some ships that have arranged for sufficient cargo of all types and so find it profitable to make the Black Sea ports. These ships are generally small motor ships of Italian and other register, which bring in some cargo and take whatever is outbound.

The shipment of filberts from the Black Sea to Istanbul is generally accomplished by Turkish Government freight and passenger ships on regular Black Sea runs and by small sailing or auxiliary Turkish ships. There is a distinct advantage to the exporter in having the filberts brought to Istanbul by these carriers, although there might be a small freight and handling charge saved if direct shipment could be made. One advantage of having the nuts brought to Istanbul has been implied--they can be shipped out promptly from that large port. Another advantage is that nut shipments are no longer necessarily delayed by storms in the Black Sea, as exporters have the nuts brought to Istanbul when they are ready for shipment, thus being assured of supplies at all times.

There is another advantage in having export headquarters in Istanbul rather than in the producing centers. When export sales are made, a foreign buyer must arrange payment through a bank. Banking facilities, while available in Black Sea towns, are much better in Istanbul, with the result that a transaction can be more quickly completed.

The exporters operating in Istanbul usually have either a local branch office in the filbert areas or arrangements to sell nuts offered by shellers and merchants in the Black Sea Coast. There is one Swiss firm, with headquarters in Zurich, that has for many years maintained an office in Istanbul and a branch office in Samsun. (I understand that branch offices were maintained at other ports in prewar years.) The local representative of this firm in Samsun is perhaps the best informed foreigner on Turkish filberts in the world. He speaks Turkish, English, German, French, and several other languages fluently. He travels over the area making purchases for his firm and arranging the shipments. There was a total of 52 exporters of filberts listed in 1952, among whom were a few other firms of foreign control with connections in many European countries and some with United States connections (see appendix).

The actual selling of filberts abroad is similar to that of any other item sold in international markets. The seller offers filberts at so much to foreign buyers, by air and regular mail letters and circulars, by telegrams, and on occasion by telephone. The foreign buyer, upon deciding that the price and the product are satisfactory, places his order. The exporter, if agreeable, accepts and requests an irrevocable letter of credit opened for the amount of the sale. The foreign buyer goes to his bank and makes the necessary arrangements. The foreign bank transmits its paper to its correspondent bank in Turkey, which in turn advises the exporter that the funds are available. Generally the exporter on confirmation of the order from the foreign buyer begins preparing the filberts for shipment and transports them to the dock. At this time he must have the inspection certificate and various other official documents. When the bank in Turkey advises him that the funds are available, he presents his papers for payment for the filberts. Readying the documents is no small job in itself. The necessary papers consist of invoices, certificate of origin, custom declaration, control certificate, export license, and bill of lading. Some countries require various other forms to be filled out. The bank usually makes a small charge for handling the collection, etc., and usually sees that the goods are insured.

The Turkish exporter generally considers the transaction complete when the filberts have been loaded on the ship and he has received his money. There are, however, times when for some reason the foreign buyer presents a claim. The nuts may arrive in poor or spoiled condition. They may be short weight due to pilferage en route or for some other reason not as represented at time of contract. It has been observed that old reliable firms seldom have claims filed against their shipments unless it is for some cause beyond their control. If a claim is filed the usual adjudication processes take over and a settlement is eventually reached between buyer and seller.

Filbert Oil

The Turkish filbert, according to publications of that country, contains about 68 percent oil, compared with 56 percent for almonds and 64 percent for walnuts. Its food value is high, according to the same sources; 100 grams of filbert kernels is said to have a value of 700 calories, while almonds would be equivalent to only 630 calories and walnuts to 660 calories. The percentage of digestible carbohydrates in filberts is also high.

The kernels are said to contain 18 percent proteins and are rich in vitamins. Available information in Turkey indicates the vitamin B content of 100 grams to be 0.54 milligram, or about the equivalent of that in pears, beans, lentils, and almonds. Filberts also contain vitamins A and C.

TABLE 9.--Proportions of oil and proteins of the principal filbert varieties

Type	Oil	Crude protein
	Percent	*Percent*
Giresun:		
Round	68.37	16.74
Pointed	65.65	21.06
Ordu:		
Round	64.96	18.31
Pointed	64.65	17.31
Trabzon:		
Round	63.20	17.56
Pointed	64.40	21.47
Fosa	64.67	14.44
Black pointed	68.73	15.35
Kus (bird)	66.31	14.49
Badem (almond shape)	58.38	17.68

The oil is rich in nitrogen. According to a Turkish anaylsis, the oil contains from 80 to 85 percent oleic acid and the balance is mostly glycerides of palmitic acid. The oil has a light golden color and a sweet, pleasant taste. The production of edible oil in Turkey is usually unimportant as it is generally possible to buy olive oil and other edible oils at prices less than filbert oil costs to produce. During the war years when it was difficult to export filberts and import oils, filberts were used to some extent for oil. The spoiled, or otherwise unsalable, nuts are crushed for industrial oils used in soap, paints, etc. Filbert oil is also used to some extent to lubricate delicate instruments.

The cake that is left over after the extraction of the oil is ground into a flour, which is used in the confectionery and pastry industries.

Appendix

Filbert Exporters at Istanbul

1. Findik Tarim Satiş Kooperatifleri Birliği
   4 ncü Vakif Han, Bahçekapi-Istanbul

2. Aleks K. Pisani Halefi Kostantin Aleks Pisani
   Anadolu Han No. 20/22, Bahçekapi-Istanbul

3. Hochstrasser Türk Limited Sirketi
   Atabek Han No. 53/56, Bahçekapi-Istanbul

4. Niyazi Mutaf
   Yağiskelesi sokak No. 4, Istanbul

5. Ohannes Çakar Agop Öksüzyan Şirketi
   Maksudiye Han No. 21/22, Balkipazari-Istanbul

6. Nemen Ithalât ve Ihracat Türk Limited Şirketi
   Yeni Valde Han No. 20/22, Istanbul

7. Riza Ihracat Türk Anonim Şirketi
   Anadolu Sigorta Han No. 40, Galata-Istanbul

8. Dümeks Ticaret Türk Anonim Ortakliği
   Abit Han No. 35/37, Galata-Istanbul

9. Ali Riza Ibrahimoğlu
   Yeşil Direk Cafer Ağa sokak No. 46, Istanbul

10. Salamon Amaraci
    Germanya Han No. 1, Istanbul

11. Mustafa Alemdağ ve Kardeşleri Limited Şirketi
    Atabek Han No. 42/43, Bahçekapi-Istanbul

12. Manuel J. Saporta K. Sönmez ve R. Asa Kollektif Şirketi
    Tütün Gümrük Yağcilar sokak No. 30/32, Istanbul

13. Hrant Buloçyan ve Şeriki
    Anadolu Han No. 10, Bahçekapi-Istanbul

14. Furtun Limited Şirketi
    Anadolu Han No. 15, Bahçekapi-Istanbul

15. Ibrahim ve Süleyman Çehreli
    Fermeneciler caddesi No. 50, Galata-Istanbul

16. Birol Türk Limited Şirketi
    Agopyan han No. 11/12, Bahçekapi-Istanbul

17. Litman Markuzon ve Ortaklari Komandit Şirketi
    Karaköy Palas, Galata-Istanbul

18. Yordan Yordanidis Halefi Istavri Yordanidis ve Ortaklari
    Asmaalti No. 50, Istanbul

19. Anadolu Konturari Ithalât ve Ihracat T.A.Ş.
    Dar Han, Tahtakale-Istanbul

20. Umum Ticaret Kontuari Ltd. Ortakliği
    Karaköy Palas Kat 4 No. 20/21, Galata-Istanbul

21. Ali Haydar Albayrak
    Iskele sokak No. 4, Yemiş-Istanbul

22. Öztürk Ihracat Ithalât A.Ş.
    Atabek Han, Bahçekapi-Istanbul

23. Kostantinos Tataridis
    Cömert Türk sokak No. 53/1, Hasircilar-Istanbul

24. Genel Ihracat Ithalât ve Sanayi T.A.Ş.
    Abit Han No. 55/56, Galata-Istanbul

25. Hayri Bayraksalan
    Yağiskelesi Saraf sokak No. 8, Istanbul

26. Tarlon Turk Limited Şirketi
    Liman Han No. 12, Sirkeci-Istanbul

27. Stilianos K. Vutas Halefi Kostantinos S. Vutas
    Balikpazar No. 58, Istanbul

28. J. ve Vittol ve Kampani Ltd.
    Istanbul Han No. 1, Aşirefendi caddesi-Istanbul

29. Argün Türk Limited Şirketi
    Havyar Han No. 89/1, Galata-Istanbul

30. M. Zekâi Ülker
    Köprülü Han No. 31, Sirkeci-Istanbul

31. A. Mikalef ve Şerikleri Kollektif Şirketi
    Soğancibaşi sokak No. 5, Yağiskelesi-Istanbul

32. Ziyal Ticaret Limited Ort.
    Kayseri Han No. 24, Sirkeci-Istanbul

33. Nihat Sözmen Tecimevi
    Uğurlu Han, Bahçekapi-Istanbul

34. Ileri Ticaret Türk Anonim Ortakliği
    4 ncü Vakif Han Kat 1 No. 35/36, Bahçekapi-Istanbul

35. Ticaret ve Sanayi Kontuari T.A.S.
    Ralli Han Kat 2 No. 14, Sirkeci-Istanbul

36. M. Oğuz Özoğuz
    Akosman Han No. 4, Eminönü-Istanbul

37. Cemil Diyaribekirli
    Akşehir Han No. 4-5, Tahmis-Istanbul

38. Komisyon Kontuari Israel Ovadia ve Şeriki
    Barlatan Han No. 27/28, Marpuççular-Istanbul

39. Birtaş Birleşik Endustri ve Ticaret T.A.Ş.
    Kuto Han, Galata-Istanbul

40. Kegam Hekimoğlu
    Maksudiye Han No. 57, Balikpazari-Istanbul

41. Transko Erman Kratis Ayanidi
Büyük Tünel Han Kat 2 No. 16, Galata-Istanbul

42. Oryant Eksport Limited Şirketi
Birinci Vakif Han, Bahçekapi-Istanbul

43. G. ve A. Baker Ltd. Şti.
Prevuayans Han, Tahtakale-Istanbul

44. Tifan Ticaret T.A.Ş.
Ankara-Konya Han kat 2, Bahcekapi-Istanbul

45. Genel Emtia Ticaret T.A.O.
Tan han No. 339, Iştiklâl Caddesi-Istanbul

46. Izzettin Yener
Tütüngümrük No. 28, Istanbul

47. Maka Ticaret Şirketi Mahmut Kantarcioğlu ve Ortaği
Havyar Han No. 95, Galata-Istanbul

48. Ali Ongan
Nemlizade Han, Sirkeci-Istanbul

49. Celile Rossi
Menaşe Han, Tahmis-Istanbul

50. Leon Finzi ve Nesim Palti ve Ort.
Hezaran Caddesi No. 90, Galata-Istanbul

51. Siegwart Vasserhart
Maksudiye Han, Balikpazari-Istanbul

52. Türk Şark Limited Şirketi
Asmaalti Çikmazi No. 12, Istanbul

(In presenting this list, no discrimination is intended and no guarantee of reliability of the firms mentioned is implied.)

Turkish Republic
Ministry of Commerce
Directorate of Standardization
(Ankara 1940)

Regulations Governing the Control of the Exportation of Filberts

PART I

General Rules

Article I - Filberts to be exported from Turkey are subject to control within the present set of regulations in accordance with Law No. 1705 on the Prevention of Adulteration in Commerce and the Control and Protection of Exports, and by Law No. 3018 annexed to it.

Samples dispatched up to a gross weight of 25 kilograms, or filberts up to the same amount in the possession of travelers are exempted from control.

Article 2 - Control within this set of regulations is effected by the Ministry of Commerce.

Article 3 - The control of filberts is made in the following central stations:

Trabzon, Giresun, Ordu, Fatsa, Istanbul.

The Ministry of Commerce reserves the right to institute new control stations provisionally, when necessary. The date when a provisional filbert control station will start to function and the date when it will conclude its activity are announced one month in advance by the Ministry of Commerce in the Official Gazette in Ankara and in other newspapers, and by other means of publicity in the locality in question.

Officials may be dispatched by the Ministry of Commerce, on demand, from nearby ports for the export control of filberts, when feasible, on condition that the travel and other expenses of such officials are paid.

Article 4 - Sanitary and technical conditions such as cleanliness, dryness, illumination and proper size to be observed by factories preparing filberts for exportation are set down by a joint set of regulations drawn up by the Ministries of Economy, Health and Social Welfare, and Commerce.

Article 5 - It is necessary that filberts be stored away from materials producing odor or humidity or from stuffs liable to soil them in filbert-shelling plants and warehouses and, if possible, also in railway and ship storehouses and on railway cars.

PART II

Points to be Controlled

Article 6 - The date of the beginning of the filbert harvest is announced at least one week in advance by the governor or sub-governor of the locality through proper means of publicity after taking into consideration the quality of the product, and the climatic conditions of the district, and after obtaining the recommendations of the Control official of the Ministry of Commerce, of the Chambers of Commerce and Agriculture, of the stock exchanges, if these exist, and of the Department of Agriculture.

Article 7 - The roundish and pointed kinds of shelled and unshelled filberts are exported under their own names of 'tombul' and 'sivri', while 'fosa', 'badem', and the other kinds are exported under the names by which they are known.

In any given kind the following is the maximum number of filberts of other qualities that may be tolerated:

a) In 'tombul' (round) filberts: 10% 'sivri' (pointed), 3% other kinds.
b) In 'sivri' (pointed) filberts: 10% 'tombul' (round), 3% other kinds.

In the case of 'sivri' (pointed) filbert consignments, 'badem' (almond shape) may be present outside of the above-mentioned 3% tolerance of other kinds of filberts.

Consignments of filberts to be exported under the name by which they are known must contain at least 70% filberts of that particular kind, by number. Those containing less than that amount may be exported under the title 'mixed'.

Article 8 - 'Tombul' (round) and 'sivri' (pointed) shelled filberts are exported under the following three categories, separated according to their size:

(a) Standard filberts; (b) 'Siramali' (medium regulars) filberts; (c) Thin filberts; (d) Natural filberts.

(a) Standard Filberts - These are divided into five categories:

Standard Extra Filberts: These are filberts which do not pass through a sieve of 15 millimeters.

Standard No. 1 Filberts: These pass through a sieve of 15 millimeters but do not pass through one of 13 millimeters.

Standard No. 2 Filberts: These pass through a sieve of 13 mm., but do not pass through one of 11 mm.

Standard No. 3 Filberts: These pass through a sieve of 11 mm., but not through one of 8 mm.

Standard No. 4 Filberts: These are filberts which can pass through a sieve of 8 mm.

(b) 'Siramali' Filberts: Filberts which pass through a sieve of 15 mm., but not through one of 9 mm.

(c) Thin Filberts: Filberts which can pass through a sieve of 9 mm.

(d) Natural Filberts: Filberts which contain all sizes produced during that year, without being sorted out.

In 'siramali' and thin filbert consignments a total of filberts of other kinds up to an amount of 2%, in number, may be present. In the case of the various categories of standard filberts, filberts of other categories up to a maximum of one percent may be found.

Article 9 - 'Tombul' (round) and 'sivri' (pointed) unshelled filberts are exported after being classified in the following groups according to their size:

(a) Extra Filberts: Filberts which do not pass through a sieve of 18 mm.

(b) Screened Filberts: Filberts which pass through a sieve of 18 mm. but not through one of 13 mm.

(c) Thin Filberts: Filberts which pass through a sieve of 13 mm.

(d) Natural Filberts: Filberts which contain all sizes produced during that year, without being sorted out.

Unshelled filbert consignments of the extra, screened, and thin types may contain filberts of the other groups up to a total of 2% in number.

The sieve mentioned in this and in Article 8 is one having round holes.

Article 10 - Shelled or unshelled filberts to be exported from Turkey have to be clean, devoid of foreign materials and well dried.

The rate of humidity cannot be greater than 12% in the case of unshelled filberts, and 6% in the case of shelled filberts.

The Ministry of Commerce reserves the right to reduce these rates.

Article 11 - The ratio of the total of mouldy, spoiled, hollow or empty filberts in each bag of unshelled filbert consignments cannot be any greater than 7% in number in the case of extra, screened, or thin filberts, and about 10% in the case of natural filberts.

The ratio of overgrown filberts in unshelled extra filberts cannot be over two percent.

Article 12 - The maximum ratio of defective filberts, on the basis of numbers, in each bag of shelled filbert consignments, has been indicated below for the different classes:

	In Standard Filberts %	In "Siramali" Filberts %	In Thin and Natural Filberts %
I - Total of rotten and mouldy filberts	0.50	0.50	0.50
II - Total of filberts that are bitter, rotten inside, mouldy inside, worm-eaten, or sour lemony	Sum of I and II	0.50	0.50
III - Total of dried-up wrinkled, protuberant, and lemony filberts not grown sour or bitter	0.50	2	4
IV - Total of broken or crushed filberts	1	1	1
V - Injured: 'Tombul' (round)	8	8	12
Other Kinds	15	15	20

The tolerance specified above separately for each specific defect may not be substituted in place of another.

Article 13 - (Cancelled).

Article 14 - The exportation of filberts produced during different years and mixed together is not permitted.

Article 15 - Consignments of shelled filberts consisting of the defective filberts stated in Article 12 may be exported under the name of injured, broken, or spoiled filberts. Nevertheless, in order to be exported under the name of injured filberts the consignment must be made up of at least 50 percent injured filberts; in order to be exported under the name of broken filberts, it must contain at least 25 percent broken filberts; and to be exported under the name of spoiled filberts it must consist of at least 25 percent defective filberts excluding the damaged ones.

In consignments of spoiled filberts, if the amount of defective units of any one kind surpasses 80 percent of the total of defective filberts as indicated in categories I, II, and III in Article 12, the exportation of those filberts under the name of that defect is also possible.

Article 16 - The injured, broken, and spoiled filberts indicated in Article 15 have to be exported in sacks of gross 50 kilograms; sound shelled filberts in sacks of gross 80 kilograms; and unshelled filberts in sacks of gross 50, 65, 75 or 80 kilograms. [a kilogram is 2.2 pounds.]

Article 17 - Filberts are exported in sacks. These have to be new or at least strong enough to endure the weight they will have to carry. In case these have holes in them such holes will have to be repaired with inside stitches.

Article 18 - Sacks to carry filberts have to be of the following weights:

Unshelled Filberts	Minimum Weight Grams	Maximum Weight Grams
For 50 & 65 kilograms	1,020	2,050
For 75 & 80 kilograms	1,135	2,050
Shelled Filberts		
For 50 kilograms	1,020	2,050
For 80 kilograms	1,590	2,050

The weight of a sack may be 5 percent more or less than the minimum or maximum weights indicated above.

The weight of two sacks in the case of double sacks may not be over 2,270 grams.

Article 19 - (Cancelled).

Article 20 - It is obligatory to place signs on filberts sacks indicating the kind and class of their contents, and to seal controlled sacks to prevent their being re-opened.

One side of filbert sacks will be reserved for official signs and inscriptions and the other side for private marks, numbers, and other signs.

No other writings or signs may be placed on the side reserved for official marks and inscriptions.

The form, color and size of the official marks and signs indicating the kind and the class of the contents of the sacks and the way in which these will be placed, as well as the method by which the sacks are to be sealed is decided upon by the Ministry of Commerce.

PART III

Form of Control and Method of Enforcement

Article 21 - In places where stock exchanges exist, the purchase and sale of filberts take place in these stock exchanges. The administration of these stock exchanges will not permit the sale of shelled or unshelled filberts mixed in amounts greater than the rates specified in Article 7.

Article 22 - The exporter of filberts or his representative designated in writing will have in a statement to the Control Official of the Ministry of Commerce requesting the control of the wares he wishes to export.

These statements are prepared in accordance with the form decided upon by the Ministry of Commerce.

The control is effected within twenty-four hours after the submittal of the statement, at the latest.

The exporter or his representative appointed in writing has to be present during the control ceremony.

Filbert consignments ready for exportation will have to be packed prior to their control, their official marks and signs placed, their seals attached ready to be stamped, and the sacks piled properly.

Article 23 - The control is effected by opening and controlling the contents of at least five percent of the sacks from among the wares prepared to be exported.

If in the course of the inspection it should be seen that the contents of a sack of filberts warrant the drawing up of a protocol as specified in paragraph (d) of Article 24 of these regulations, the exportation of the wares is not permitted. Nevertheless, whether a protocol will be drawn up or not, for such consignments, will be decided upon by considering the mixture to be produced by samples obtained from all sacks opened in the light of paragraphs (b) and (d) of Article 24.

Control officials may inspect and control filbert shelling plants, depots, and filberts prepared for exportation.

Article 24 - Control officials do the following, depending on the outcome of the inspection:

a) If the quality of the wares is found to agree with the kind and category specified in the declaration, the openings at the top of the sacks are sealed and a control certificate issued to the exporter relative to the kind and category of the product.

b) If the wares are found to be exceeding up to double the limits tolerated by the regulations for the particular kind and category of the product as specified in the declaration, and if this is recorded and signed behind the declaration by the exporter or his representative, the wares are debarred from exportation and the exporter advised to re-sort his wares.

In case the exporter or his representative objects to the outcome of the inspection, he should then put down and sign his objections behind this declaration; the committee mentioned in Article 31 then inspects the unopened sample from among those obtained in accordance with Article 28.

The committee puts down its decision on the case in a clear manner and signs it, under the objection recorded on the declaration, giving its reason for such decision. In case it considers the exporter or his representative justified in his objection, permission is granted for the exportation of the product and a control certificate issued.

In the case outlined in the above paragraph no protocol is drawn up.

c) If standard shelled filberts prepared in accordance with Paragraph (a) of Article 8 are found to be possessing the qualities mentioned in Articles 10, 12, and 14, but are seen, from the standpoint of classification, not to correspond to the category specified in the declaration, Paragraph (b) above is applied in their regard. No protocol is drawn up in this case.

d) If the wares are found to be exceeding by twice the margin of the limits tolerated by the regulations for the specific type and class specified in the declaration, a protocol is drawn up in accordance with Article 29.

Control certificates issued according to Paragraph (a) above are valid for twenty days beginning with the day following the inspection of the wares. If the goods are not exported in the course of this period, the exporter or his representative is under the obligation of informing the office of control thereof. A further inspection is necessary before the exportation of these goods is permitted.

Article 25 - Customs Administrations cannot allow the passage of goods which do not possess a control certificate or which have overrun the period of exportation as specified in Article 24, or which do not bear the inspection seal.

Article 26 - Sacks belonging to a controlled consignment can be opened only in the presence of the control official.

An exporter who gives up exporting all or part of his filberts after these have been inspected is expected to immediately return his export certificate to the control official. In case the exporter has decided to give up exporting only one part of his wares, a new control certificate is issued to him for the remainder of the consignment.

Article 27 - Filberts belonging to a controlled consignment may, if deemed necessary, be re-inspected at any time by the control official or by another competent official.

Article 28 - The control official takes away as many samples as necessary -- not over three, and not over half a kilogram each -- from each consignment of filberts inspected in accordance with the provisions of these regulations. These samples are jointly sealed by the control official and the exporter or his representative. These samples are preserved in the office of the control official for a period of three months in case no dispute arises as regards the consignment in question, or up to the settlement of the dispute should such a disagreement arise. The exporter may receive back his samples by applying within one week after the termination of this period.

Article 29 - Should a situation be witnessed in the course of the inspection contrary to the provisions of these regulations the case will be put down in the form of a protocol by the control official of the Ministry of Commerce. These protocols are drawn up in four copies. The exporter of filberts or his representative is under the obligation of immediately signing this protocol if he has no objections to its contents. On the other hand, if he does have objections, he should put these down in the proper place on the protocol and sign it immediately.

One copy of the protocol is given to the exporter in question or to his representative. The remaining copies are preserved in the possession of the control official.

Article 30 - If an objection should arise by the exporter of filberts or his representative as a result of the inspection, upon the application of the control official, the subject of the disagreement is taken up and investigated within 48 hours by the committee mentioned in Article 31 in the presence of the control official and the exporter in question or his representative.

Article 31 - A committee is set up in the following manner to investigate and to decide upon any objections that may arise from the exporter or his representative as regards the outcome of the inspection:

1 - A person acquainted with a knowledge on filberts selected for a period of one year by the local Chamber of Commerce and certified by the Ministry of Commerce, and in his absence his substitute selected in the same manner.

2 - In places where a Stock Exchange exists, the Exchange Commission; in places where this does not exist, the Chief Secretary of the Chamber of Commerce and Industry, and in his absence, his deputy.

3 - A person qualified on filberts to be selected by the Ministry of Commerce, and in his absence, his substitute selected in the same manner.

Members who are the descendants of or who bear kinship up to the fourth degree with the exporter of the goods about which a dispute has arisen, or who are employed by the latter, cannot attend the committee.

Article 32 - After inspecting the samples delivered by the control official, the committee puts down clearly and signs its decision, on the basis of its conviction, along with the reasons on which such decision has been based, either under the objections recorded on the declaration or in the proper place on the protocol, depending on the circumstances.

Article 33 - In case the committee should justify, as a result of its inspection, the claim advanced by the exporter or his representative, permission is granted for the exportation of the goods in question. In this case, a copy of the protocol, bearing also the decision taken by the committee, is dispatched to the Ministry of Commerce for information.

Article 34 - If no objection is made by the exporter of filberts or his representative in regard to the protocol, or if an objection is raised but as a result of the investigations carried out by the committee formed in accordance with Article 31 it is established that an action has taken place contrary to the provisions of the regulations, the exportation of the goods is not permitted and a copy of the protocol is turned over to the Attorney General for prosecution and another copy dispatched to the Ministry of Commerce.

Control officials preserve one copy of the protocols drawn up by them.

Article 35 - In case an injury occurs which may affect the quality or the packing of controlled goods prior to their passage through the customs the proprietor or his representative has to immediately inform the control official thereof and to see to it that the damage caused is repaired in a way to agree with the provisions of the regulations.

Article 36 - Prosecution is carried out in accordance with Article 8 of Law No. 3018 in regard to those who submit for control filberts which, from the standpoint of quality, classification or packing do not agree with Articles 7-18 and Articles 20, 23, and 24 of these regulations, and in regard to those who act contrary to the provisions of Articles 4, 22, Paragraph 2 or Article 26, and Articles 28 and 29. In all other cases or in matters in which the existence of ill will is established prosecution is effected in accordance with Law No. 1705.

Article 37 - Beginning with the date of application of the present set of rules, the Regulations dated November 4, 1931 regarding the control of the exportation of filberts as well as Rules dated December 31, 1933 and January 24, 1934 amending certain of the articles in those regulations will be cancelled.

Article 38 - The present set of regulations, which has been endorsed by the Council of State, becomes effective 30 days after the date of its appearance in the OFFICIAL GAZETTE. (The date of application of the articles relative to Regulations dated January 8, 1940, No. 2/12623 has been decided upon as fifteen days after the publication of the regulations in the OFFICIAL GAZETTE.)

Article 39 - The Council of Ministers has been charged with the application of the provisions of the present set of regulations.

Supplementary Article 1: The following are the production areas for filberts:

(a) Trabzon: from Hopa as far as Akcaabad (inclusive)
(b) Giresun: from Akcaabad as far as Aptala (inclusive)
(c) Ordu: from Aptala as far as Terme (inclusive)
(d) Akcakoca: area known by that name
(e) Degirmendere: area known by that name.

Shelled or unshelled filberts may also be called by the name of the locality in which they are produced, on condition, however, that they are subjected to the classification outlined in Articles 7, 8, and 9.

Supplementary Article 2: The maximum ratio of single filberts which can pass through a sieve of 8 mm. among natural shelled filberts classified in Article 8 and that of single filberts which can pass through a sieve of 13 mm. among natural unshelled filberts classified in Article 9, as well as samples of dried-up or wrinkled, protuberant and lemony filberts not grown sour or bitter and of injured filberts indicated in Article 12 are, according to the requirements of that year's harvest, announced and exhibited in the various localities by the Ministry of Commerce after establishing these for each control station separately and by considering the recommendations made by the Chambers of Commerce concerned and by the committees mentioned in Article 31.

The Ministry of Commerce reserves the right to change the rates and samples mentioned above in case of necessity, provided that such change is not effected more than once during each harvest year.

Supplementary Article: In case of such urgent circumstances as state of war within and outside of the country, mobilization, preparation for mobilization, or natural disasters, the Ministry of Commerce has the authority to extend the tolerance limits up to twice the degree specified in these regulations, and to take such decisions as may be deemed necessary according to the circumstances in the application of the rules regarding the subject of packing.

. . . .

Rule Regarding the Modification of the Regulation on the Addition of an Article to the Set of Regulations Governing the Control of the Exportation of Filberts

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Decree No. 2/18552

OFFICIAL GAZETTE No. 5193 of August 25, 1942.

Article 1: Article 2 of Regulation adopted by Decree dated January 19, 1940, No. 2/12718 regarding the addition of an article to the set of Regulations on the Control of the Exportation of Filberts published on August 24, 1937 has been modified as follows:

The Ministry of Commerce reserves the authority to extend the tolerance limits up to twice the degree specified in the regulations in the face of such urgent circumstances as a state of war within and outside the country, mobilization, preparation for mobilization, or natural disasters, to recognize, exclusively in the course of second inspections, tolerances not stated in the regulations but accepted by the market; to adopt decisions according to the circumstances in the application of rules on the subject of packing; and to extend up to 60 days the period of 20 days of the control certificate specified in Modified Article 24 of these regulations.

Article 2: These regulations, which have been examined by the Council of State become effective on the day following their publication in the OFFICIAL GAZETTE.

Article 3: The Council of Ministers is in charge of the enforcement of these regulations.